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CANADIAN BEE JOURNAL

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BRANTFORD, ONT., JAN., 1899.

WHOLE NO.
407

A Union Bee-Keepers' Convention.

There will be a union bee-keepers' convention at Brantford, beginning 1.30 p.m. Thursday, February 9th, closing the afternoon of the 10th. To this meeting all bee-keepers will be welcome. The questions discussed will be in connection with the practical management of bees. Several have been invited to give papers, taking such subjects as, "What I have found out I did not know about bee-keeping ten years ago." A debate will take place the second day, in which sides will be chosen: the subject, "Cellar versus outside Wintering in Western Ontario." This should bring out in a concise form what can be said in favor of either method.

Among the questions discussed will be the following:

Should the brood chamber of the hive be contracted for winter?

In cellar wintering, how should colonies be prepared and placed in the cellar?

Is stimulative feeding in the spring desirable, and, if so, how should it be done?

Is the spreading of brood in the

spring desirable; if so, how should it be done?

5. Is it desirable to keep down swarming? if so, why; and how can it be best done?

6. Should the bees be hived on the old or the new stand?

7. A person has only a limited time to look after ten to twenty-five swarms of bees. How can he manage with the least labor to secure the best results?

Anyone having questions to ask, can send them to the editor of THE CANADIAN BEE JOURNAL, or bring them to the convention.

The Hotel Belmont will be headquarters. The regular rate is \$1.50; to those attending the convention, \$1.00 will be the price.

Arrangements have been made with the Grand Trunk Railway, Canadian Pacific Railway, Michigan Central Railway, and Toronto, Hamilton & Buffalo Railway, for reduced rates, providing fifty attend the convention. A number of ladies have already promised to come. All will be welcome. If further information is needed, address,

Yours truly,

R. F. HOLTERMANN.

P. S.—It is the intention to take a photograph in a group of those attending the convention, and make an engraving to reproduce in THE CANADIAN BEE JOURNAL.

Annual Meeting Ontario Bee-Keepers' Association

Held at Guelph
Tuesday, Wednesday
and Thursday
Dec. 6, 7 and 8, 1898

The Nineteenth Annual Meeting of the Ontario Bee-Keepers' Association was held in the Council Chamber, in the city of Guelph on Tuesday, Wednesday and Thursday, Dec. 6th, 7th, and 8th, 1898.

The president, Mr. M. B. Holmes, called the meeting to order at 2 p. m.

The Secretary, Mr. William Couse, read the minutes of the last annual meeting, which, on motion of Mr. W. J. Brown, seconded by Mr. A. Pickett, were adopted.

The President's Address.

LADIES AND GENTLEMEN :—

At all Association meetings there is one number which invariably finds a place on the programme, and that is the President's address. Sometimes our anticipations are fully met in the address and again we meet with disappointment.

There are instances on record in which a presiding officer has pleased a part of his people part of the time, and there may have been instances in which a presiding officer has pleased all of his people all of the time, and while we might be tempted to envy the seemingly favored position of the latter, we are ever reminded that, after all, he is not the most fortunate of whom all men speak well.

Another year has passed and we are, in the order of Providence, permitted to meet in annual convention. As we enter upon the deliberations of this meeting, it is only natural that we look backward over the time that has so quickly passed and note the successes, the reverses, the mistakes, the griefs, and the shadows which have fallen to our lot; while at the same time we lay our plans to avoid (if possible) the grief and mistakes and to court only success, and with the experience which we have of necessity gained, we certainly ought to be better bee-keep-

ers and better men and citizens in every way.

In this connection I venture (with pardonable pride) the assertion that those who have, for any considerable time, made bee-keeping a special study, are almost invariably good men and good citizens.

It gives me a very great amount of pleasure to meet the bee-keepers of this, the banner Province of the Dominion of Canada, on this occasion. There is a pleasure in meeting because of the very favorable season through we have just passed, the honey-harvest generally throughout the Province having been a good one, some localities, however, reporting only a very low average yield of honey. Again, there is pleasure in meeting because of the very excellent programme which we are able to place before you. Masters in apiculture from the north and south, from the east and west and from the Republic to the south of us, are to give us the full benefit of the advantage gained by years of study and research. Honorable gentlemen in high positions of trust in the Government of this fair country are expected to speak to us; truly this is a bill of fare which cannot fail to satisfy and please the most fastidious, and I presume the question arises, "How can we do justice to this 'Feast of reason and flow of soul' in the short space of three days, the time allotted for our convention in this city?"

The location contributes largely towards making the present meeting a pleasurable one. Guelph, the Royal City, with its beautiful surroundings, its great mercantile houses, its large and commodious churches, where its happy, prosperous and contented populace may worship, its well kept streets, its residential quarters with their many stately mansions, its well appointed hotels under such perfect management, and its Agricultural College with its most competent staff of professors and teachers, where every branch of agriculture and domestic

science and economy is so thoroughly conducted and the principles so well inculcated, each under its own separate and distinct head, that even those who might be disposed to criticise are unable to do so. These and other considerations, to which reference might be made, certainly go a long way toward making our visit to this city a pleasure.

Our beloved Association is moving along nicely and it is certainly most gratifying to know that the work of disseminating useful knowledge among our members, while at the same time their personal interests are being served, is being so well accomplished. However, as there is an ever widening field before us, the methods at present employed will doubtless be changed and improved as time and circumstances may require, and as "England expects every man to do his duty," so, in like manner let every member of this Association stand by the colors and speak well and only well of the organization which has done so much for the bee-keepers of this country and in this way help to swell our present membership by the addition of the names of hundreds of bee-keepers who have not, as yet, realized the true import of a membership with us.

In this connection the recommendation of a Lecturer at Farmer's Institutes, (the appointee of the Provincial Government) might be worthy of your consideration. In any event, first and last and all the time, let us be loyal to the organization which has for its object the promotion of the best interests of bee-keepers in general. Gentlemen, the truest badge of membership and the best show of sincerity is a loyalty that manifests itself when there are no selfish interests to serve.

The inspector of apiaries has, so far as I have been able to learn, attended to the work in connection with his department in a manner which has been quite satisfactory to all concerned. His report will, however, be submitted for your consideration and approval.

The present prices of honey, with the slightly downward tendency incident to the harvesting of a good crop, will probably have a discouraging effect upon some of the bee-keepers of this province.

The history of the butter and cheese industry would certainly be an interesting and profitable study for all such. When the price of cheese commenced to decline, the dairymen did not for a moment entertain the thought of giving up the business. On the contrary, they de-

ecided to keep a larger number of cows and to introduce new systems of feeding with a view to increasing the yield of milk per cow, "and the result with the "up-to-date" dairyman is that the average yield of milk per cow has been doubled and in many instances more than doubled. No, the dairymen did not give up because of low prices, and may we not profit by a study of their movements? Following their example we will keep a greater number of colonies of the very best bees that money can buy, sparing no pains or expense to improve and make the most of the bee-pasturage in our various localities and thus keeping pace and co-operating with the dairymen, we will do our part in making this fair Canada what it was originally intended to be,—"A land flowing with milk and honey."

I thank you for the honor you conferred upon me by making me your president one year ago, and while there may have been errors and omissions which my successor will studiously avoid, I have, nevertheless, endeavored faithfully to discharge the duties incumbent upon me, and beg to assure you that I have appreciated and do appreciate the uniform kindness that has been shown me by one and all.

In conclusion, I sincerely hope that the highest measure of success and happiness may attend you and each of you and that the Ontario Bee-Keepers' Association may have an ever increasing prosperity and flourish forever.

Spring Management, by Mr. H. G. Sibbald.

The subject assigned to me is Spring management. Perhaps the first consideration for those of us who winter our bees in the cellar is, when to set them out. I would say as early as possible after the middle of March. A few years ago, a month later was considered right. But from experience, I believe better results follow earlier setting out.

We save a few colonies that might not have stores to last until the middle of April, some that are affected with dysentery, and any that are restless, by giving them an earlier fly and earlier attention.

Next comes how to set them out, each hive ought to be placed on the stand it occupied the previous summer, for the following reasons: they remember their old location and will return to it, if placed on any other stand, thus mixing up with other colonies causing discontent, swarming out, queen-balling, and general dis-

order and loss. For four seasons I have practiced placing them on their own stands and have not had any of the above mentioned troubles, nor have I lost a single queen in the spring. Four years ago I felt a curiosity to know how my bees had wintered and also wished to have their company in the yard. It was a fine sunny day in March. So I accordingly entered the cellar and carried the first hive out, placing it on a nice dry stand in the centre of the yard, they soon commenced to fly out, and I watched them with interest and pleasure as they flew so strong and healthy, but I soon noticed quite a cluster on the front of a corner stand, and I began to wonder what caused them to gather there. Then I remembered that this was the last hive carried in and so belonged to this very stand. To further experiment I brought out the next hive and set it on the corner stand, where the bees had gathered, they at once entered but did not seem satisfied, but the bees that flew out surrounded the stand next to it where they belonged.

I took the lesson, placed each on its original stand, and as I carried the remainder out followed down that row up the next and so on until I had every hive where it was before, without the trouble of numbering hive and stand as some advocate and practice.

The next important work in connection with setting the bees out is examining them. This I have reduced to a minimum by having each hive contracted on five or six combs, the previous fall taking out four or five of the undesirable combs and placing a division board beside those remaining. Thus having the bees snug and tight, clustering while in the cellar right down to the bottom board, and where they can be seen plainly, by holding a candle close to the opening at the back where the hive is blocked up three-eighths or half inch off the bottom board.

A few days before setting out time go through the cellar with a candle and take a peep in at each hive. If they are clustering quietly, the bottom board clean and dry, I place a mark on the hive indicating that they are all right and need no examination. Thus I have only the few that are uneasy or those in which the dead bees have not been cleaned off the bottom board, to examine. Perhaps only ten or fifteen out of say ninety or one hundred hives. This is a decided knock in the head to the robbers. They do not get any snap that day and attend to legitimate business. I might

just say that when carrying them out, if I notice one unusually light, I mark it to be examined also. Thus we have eighty to ninety per cent, with the propolised quilts undisturbed, air tight at the top, contracted, and, as I consider in the best possible condition for future prosperity. After placing entrance blocks and sun caps on each hive leave them alone for nearly a month until the young bees are hatching nicely and pollen coming in freely, then have a general examination looking into each hive carefully, but quickly, noticing the brood, honey supply and in fact the exact condition of each colony.

If the bees do not cover the combs take one or two away, only leaving those that will be well covered by the bees. Crowd the combs very closely together, brood in the centre and a well filled comb of honey at each side. Place a comb or two containing honey and pollen outside of the division board, (there ought to be a bee space underneath the division board so that the bees can come around and carry this food into the living apartment.) This stimulates brood rearing, keeps them at home contented, on windy rough days and is a perfect assurance against starvation. It also aids in the more generous feeding of the larva, and keeps the bees healthy, and strong, I believe they look upon these combs as not belonging especially to them and the more eagerly and joyfully carry it around, placing it in cells just above the brood, uncapped and ready for present needs. A constant supply is kept in this way until they occupy the entire hive and there is no further room for it.

During the willow bloom they may need more room. The brood should not be spread, the additional combs ought to be placed just inside of the comb containing the honey, and outside the brood nest, never adding more than one or two at the same time and repeating the operation from time to time until the whole hive is full, I generally use combs that the honey has been taken from and that has been cleaned up by the bees, outside of the division board, they are more likely to be filled right up to the top-bar with brood. Always keep them crowded and if anything short of room, so that the brood is well covered and cared for, and the queen looking for more cells is compelled to lay in the very corner ones, thus giving solid combs of brood as we go along.

During the early part of fruit bloom, hives ought to be cleaned all burr-combs, barr-combs, and propolis scraped off the frames and hive. All queens ought to be clipped, this is the most convenient time

to find them. Choose a fine warm day when most of the bees are engaged in the trees, and the hive is sparsely occupied, she can be detected readily, and the work of searching for her is greatly reduced.

At the close of fruit bloom I aim to have each hive contain, eight solid combs of brood, and two of honey. During the week or ten days of dearth between fruit bloom and clover, place the combs containing the honey in the centre of the brood nest, one first, followed four or five days later by the other. The cappings having been scratched, so that they at once move the honey, feeding their brood more generously, stimulating and encouraging the queen so that she at once deposits eggs in the cell as they are thus emptied, making ten combs of solid brood and the hives ready for supers. By this plan the old honey and dark fruit bloom honey is actually traded off for brood, and the first extracting is all new, white, marketable honey.

Of the work in the honey house and work shop, I need not take your time any more than to say, if one has a large number of colonies to manage, or other work to attend to through the busy season, have all the preparatory work done you can, such as, new hives ready, supers cleaned up, barrels and tins washed, extractor, bee-smoker, and all other appliances in readiness for the rush of the busy season.

Thanking you gentlemen for the kindly hearing you have given me and hoping that these few remarks may provoke a valuable discussion.

Mr. D. W. Heise, Bethesda—The fore part of Mr. Sibbald's paper treats almost exclusively on the management of bees where they are wintered inside. I have never had any experience with indoor wintering, and therefore I am not able to say anything on their management. But the latter parts corresponds so closely with my experience in management that I have nothing to say there; I could not criticize it; the only thing I could possibly say is to emphasize the importance of some of the things he has there outlined.

Mr. R. F. Holtermann, Brantford—I happen to have seen a good deal of the comb honey which Mr. Sibbald has produced. I have seen it time and again on the Toronto market, and I must confess that from that standpoint I received an exceedingly good impression of Mr. Sibbald's ability as a bee-keeper. I have never seen anything, and I have seen it dozens of times on the Toronto market, which would not be a credit

to any bee-keeper. And I wish to say that particularly, because I think, coming from this standpoint, that it always adds value to the paper, and I know that Mr. Sibbald is modest, but I would like to emphasize that point. In his management I see one point—there are many points which are valuable—but one in particular which I believe would bear discussion, and that is the point of converting the honey which comes in early in the spring, which is dark and inferior, into bees. That is a point in successful management. There are so many who won't do that, and the result is not alone that they do not get the bees for the honey, but that honey is taken up in the upper stories of the hive, where for comb or extracted honey it deteriorates the value. I would like to ask Mr. Sibbald a question, whether under all circumstances he advocates the clipping of queen's wings.

Mr. Sibbald—I do.

Mr. F. A. Gemmill, Stratford—Did I understand Mr. Sibbald to say that it was necessary to put them on five frames wintering in the cellar?

Mr. Sibbald—That is what I try to do.

Mr. Gemmill—Don't you think that for wintering in the cellar they would be just as good on eight or ten frames?

Mr. Sibbald—No, I don't think so.

Mr. Holtermann—I would like Mr. Sibbald to answer the question I asked him.

Mr. Sibbald—I do, before the swarming season.

Mr. Holtermann—All men keeping bees under different conditions you would advocate the clipping of wings?

Mr. Sibbald—I haven't considered it from any other standpoint than my own.

Mr. Heise—What injury would come from clipping it?

Mr. Holtermann—Of course it certainly comes under Spring Management, the clipping of queen's wings. You know there is a diversity of opinion about the matter. I will tell you the conditions under which I don't like to see queens' wings clipped. If the bee-keeper is not at hand always to catch the queen when she issues from the hive, then she is very likely to be lost, when many a swarm wouldn't lose the queen if her wings were not clipped and the beekeeper were there within a few minutes to get the swarm.

Mr. Gemmill—I think in the matter of clipping queens' wings everybody has to use their own judgment. Mr. Sibbald advocates the clipping of queens' wings, so do I, and I guess if a majority of hands were shown here they would favor it. You have to use your own judgment. I would

like to hear what Mr. Hall has to say about bees going into the cellar on five frames instead of ten.

Mr. J. B. Hall, Woodstock—If they are on five frames in the apiary I prefer to put them in the cellar on five frames; If they are on sixteen frames in the apiary, I prefer putting them there on sixteen frames. I prefer doing things with the least labor. As I told you before I was born tired.

Mr. C. W. Post, Trenton—I like a temperature of about from forty-two to forty-five degrees, but if there is a draft and much cool air coming into the cellar to keep the temperature down I would rather have the temperature in the cellar a little higher rather than to go lower.

Mr. Hall—If I have to talk I would like to ask our friend who wrote the paper on Spring Management why he prefers all his queens clipped—that hasn't been asked him. Under all conditions I favor clipping queens.

Mr. Wm. McEvoy, Woodburn—I am in favor of clipping queens under every circumstance.

Mr. A. Boomer, Lynwood—I was very much interested in the paper which Mr. Sibbald read, more particularly so because he happens to be a relative of my own, and because I am largely interested now in that particular class of bee-keeping, or at least in spring management of bees, and I was very anxious to hear anything that might be said on the subject that would help me in that particular. I have read a good deal about setting bees out just exactly where they were before; I have read those who believed in it and those who did not believe in it. Last year I wintered largely outside, and I put the bees in, not having any help. I put them in somewhat hurriedly, and then it was a consideration to me in the Spring in putting them out whether I was going to have difficulty in the making up. I took out about half of them one day to see what the effect would be, and spread them somewhat over the yard, and I have to say here now that I found no such difficulty as my friend has intimated in his paper. The bees kept very well to their own hives, and there was no scattering around that I could discover. On looking them over afterwards I found that they were in very much the same condition as they came out of the cellar. If some of them had strayed to other hives there were some had come the other way perhaps. At any rate I could not see that there was any difficulty in that respect whatever. On setting out the rest

I found they kept very well to their own hives, and upon the whole I couldn't see that there was anything worth the trouble and bother of making the locations and the hives. Not a single colony that I wintered in the cellar had died, and not a single one of those colonies was queenless in the Spring, and every one of them came safely through the Spring, whilst one or two that were wintered outside lost their queens. Now, as to the clipping of queens, I have had no experience further than in the purchase of queens, and so far, my experience with clippings queens is not favorable to that. I have found that the bees superseded the clipped queens before they were two years old almost as a rule. Those colonies into which I introduced clipped queens, and knew they had been safely introduced, they would swarm the second or third year at least, and the queen would be an unclipped queen. I know that a queen I bought a year ago this Spring, and was guaranteed to be one year old then, was superseded this summer, and it disturbs the hive considerably to have them supersede the queen. Then again, I have had no trouble whatever with absconding swarms. Having a considerable number of small trees around the yard I have not found any colony to swarm without first lighting, and it seemed to me to be less trouble to take care of these swarms than to watch the clipped queens. So that so far, from the experience I have had, I am not in favor of the clipping of queens. Otherwise the paper my friend here has read is certainly very interesting to me. There are many points that I think worthy of note, and I shall think of them, and read his paper again when it comes into print. There is just one thing he had no remarks upon that I would touch, that is, the removal of drone comb from the hive in the Spring. I presume he is careful to see that there is a little drone comb left, but he made no remark as to that. On looking over the colonies I try to replace any drone comb there is with good comb, and in this way to keep down the drones as much as possible, because I fully believe that the raising of a lot of drones stimulates swarming. One season when I carefully removed drone comb I was not troubled with swarms at all, and yet my young friend here, I suppose, has had more experience and more instruction in bee-keeping than I have had myself, so I would not like to criticize his paper too closely. I appreciate it very much.

Mr. Hall—My aged brother across the road, of course we can sympathize with

each other, but I can say in Mr. Sibbald's favor, that I have kept bees for 23 years past, and I have been a clipper. I have never had but one queen leave the second year. I attribute it to putting them in a cage and chocking their laying qualities. Last year we had a queen in its fourth year, and it died. If you had offered in the spring \$10 for that bee you couldn't have had her. She was clipped when six weeks old. That is the only thing I differ in from that gentlemen. Never open a hive of bees from the top until the fruit blossoms. You may do some good but you will do a great deal of harm. You will come into clipping. I was laughed at 20 years ago for clipping. I stood that laughing. Clipping their wings keeps them at home, and they cannot get off where r they choose. My advice is, keep on clipping.

Mr. Gemmell—I don't think it is fair to say that clipped queens are superceded any sooner than any other. Take your young queens and clip them and put them right back in the hive again, and then see. We all know that if you buy a queen from any part of the country and introduce her into the hive, she doesn't live as long as one that has been born in the hive. Queens should be caged in the hive a day or two before they are sent away.

Mr. Holtermann—I wouldn't like to be understood that I think the clipping of the queen will result in superceding. I think a great many think that queens are not superceded when they are; when they clip them they know it, and when they do not clip them they don't know it. I would not like to lay down a universal rule for clipping. Where a person has 4 or 5 swarms they can keep their eye on those swarms to a certain extent and nearly always will catch a swarm, when, if they are clipped, and the queen comes out and she is lost or goes back, they will destroy the queen and then that bee-keeper rests under what is false security; he thinks he will be able to get his swarm, when, as a matter of fact, the young queen is going to go out. I would like to ask Mr. Boomer, do you set out your swarms a few at a time or all at one time?

Mr. Boomer—I set out some 30 one day and the same number the next day.

Mr. Holtermann—What do you do, Mr. Sibbald?

Mr. Sibbald—I set them all out at one time.

Mr. Holtermann—What time of the day?

Mr. Sibbald—Morning.

Mr. Holtermann—I set out my bees not

all at one time, and I try to set them out when they are not going to fly immediately, and I think that makes a great difference. If you set out your bees all at one time the result is they do not locate themselves, and in this question of bee-keeping we want to get at the bottom of the business, and we will find our differences are not as great as we imagine.

Mr. J. D. Evans, Islington—When my bees swarm, and the bee-keeper is not there and the queen gets lost or destroyed, how does the keeper prevent the first hatched queen from going away with the swarm before she is old enough to be clipped.

Mr. A. Pickett, Nassagaweya—I am listening to this matter of handling bees in the spring with some interest, and with perhaps profit. My method of setting out bees of late years has been to set them out towards evening, so that they are calmed down and quiet, and when they fly out the following day they go out as calmly as they would any other day, and there is no excitement, or not that excitement which prevails when they are set out in the early part of the day. Like many others, we are anxious to see what they look like in the spring, and when a fine day comes, are eager to set them out. Around one hive you would find there was quite a large number flying and perhaps another one with quite an amount of disturbance was not flying scarcely at all. To my mind the bees were changing position in many cases and were flocking to the front of other hives, or, in other words, to the old stand whence they were carried. And I think if we note the matter carefully we will see at once that it is wise to put them on the stands from which they were removed in the fall, and all that mingling will be done away with, we will have less bees lost, and the result will be that they will go forward with their work in harmony and with a will. I approve of the method of setting them out in the evening, as I said, because of the fact that this mingling is done away with. The question that Mr. Evans asked, I am not prepared to answer just now.

Mr. John Newton, Thamesford.—I was very much pleased with the paper our brother read a few minutes ago, and I thought at the moment that I couldn't say a word on the clipping of queens. Of course I have been in favor always of clipping queens, and there was just this drove my attention to it. I was not able on going over my hives to find all my queens, and for that reason I think I have

lost three swarms this season, the only time I have lost a swarm since I kept bees, and I know had these queens been clipped and I not been there I would have had the bees. It is the bees we are after; we do not miss a queen at that season. It is the time we are looking forward to our honey crop, and we must try to save the bees.

Mr. Evans—When a queen is gone the other queen is hatched, and that queen, I understand, will possibly swarm before it is mated. How would you gauge the proper time to clip that queen's wings before it goes away with the swarm and before it is mated? I am speaking, in this case, where you have an out apiary. I want a young queen that will stay in the hive in place of the old queen, and I want to know how you are going to keep her there.

Member—Ten days from the time the egg is hatched she will begin to lay; that is the rule.

Mr. Evans—What are you going to do with that ten days if she wants to swarm before she lays?

Mr. Hall—We will suppose colony No. 1 swarms to-day, and it goes back, it will swarm again to-morrow. If the queen is lost they will go back and won't swarm again until the first queen hatches; that you are aware of. I go out once a week, and 90 times out of 100 there isn't one queen hatched out in seven days and flying away. When I open that hive I know whether there is a queen hatched or not. If the queen is there there are eggs, and if she isn't there are no eggs. Therefore, I know the queen is lost; and if she is lost I prevent any further increase from that stock of bees.

Mr. Holtermann—That queen when she deposits eggs in the cell, and that colony has had the swarming impulse, she may fly out just as quickly as she has lodged one egg in the queen cell.

Mr. Hall—It has never been my experience to have a young queen swarm the year she was born. A young queen won't lay her egg and swarm. Some one has said they will swarm, and if they don't return you will then, of course, lose your queen. That is immaterial; as long as they have wherewithal to raise a queen they are quite at home. By having your queen clipped they come back. They may swarm in two days; again they come back; they won't swarm out again—mother won't go.

Mr. Evans—Am I correct that after the old queen is lost, and all the queens destroyed but one, and there is only one

queen in the hive, there is no danger of their swarming?

Mr. Holtermann—If she begins laying.

Mr. Hall—They have no swarming impulse then.

Mr. Holtermann—You have practically nothing after clover, but where you have buckwheat that makes a difference.

Mr. Evans—We have buckwheat in one apiary. You have to guard a young queen very closely indeed to make her discontented with her surroundings.

At this point in the discussion Mayor Hewer and Alds. Howard, Nelson, Kennedy and Peterson come in, and address the Association in warm words of welcome.

Mr. McEvoy—There is another point I had forgotten. Where the garden is close at hand they don't want their queen in their neighbor's garden, and if they clip them they won't have to go after them. If they have wings you have to live them within a reasonable time.

Mr. James Armstrong, Cheapside—If I understand the thing, if you clip the queens they will come back without any confusion at all.

Mr. Holtermann—I think it is much better not to have any swarms at all. We have had 7 and 8 at one time this year, and I will tell you how you can prevent it. You have all seen in the Bee Journal a description of Taylor's Swarming Device. The moment you see your bees coming out, or before the queen issues, you put this at the front of the hive. It is practically a cage. The swarm issues into this, and perhaps in the minute after you have that adjusted another comes out. You put another at that, and you can have 8 at one time. You can separate all your bees; you haven't to look after your clipped queen at all. After a swarm issues you take off the Taylor's Swarming Device (there is a cloth at the mouth of it) and close it up tightly.

Mr. McEvoy—What would you do where a hive has raised from the board an inch or an inch and a half?

Mr. Holtermann—I would have some better system. A child who can't catch a queen, who can't see it, can do that, and they can be left there all day if you like. Some haven't made a success of Taylor's Swarming Device. If you attempt to give your bees in the new hive as soon as they are out of their hive they are going to take wing and leave it instead of going into the new hive, but if you allow them to stand there and cluster, and then put

them in the new hive, you haven't any of these difficulties.

Mr. Gammell—I have 7 or 8 of them in the yard, and I never mind the first swarm, but just as soon as I see the second coming, up goes the cage. I carry them into a little shop where it is shady, and after half an hour if I want to use a catcher, I use it. I remember hiving 11 swarms from half past ten to twelve o'clock, and not one of them were in the air at the same time. It saves trouble and saves mixing up. I have used those catchers for some time. I have them standing at different places through the apiary, and when I see a swarm coming I look for the first catcher and it is clipped on.

Mr. Hutchinson—I rather object, these gentlemen are spoiling all my fun on me.

Mr. J. K. Darling, Almonte—The discussion started on clipping queens, and we have wandered off to something else I think. As Mr. Hall says here, I am a clipper. I wasn't at first, but I have clipped the queens for a number of years. I was forced into it by a very disagreeable neighbor, and I don't know that he ever did me a greater favor in his life. I know he didn't; he has saved swarms for me that I would have lost if I hadn't clipped. I lost those that issued with unclipped queens in several instances. Friend Hall here says that if they come out the second time they will stop at home, is that it?

Mr. Hall—No sir, after the third time. Three times and out.

Mr. Darling—Well, I had them seven times and out.

Mr. Hall—Did you put them back in the brood chamber?

Mr. Darling—It was a new swarm, and they had been in for a time. It was a Jones' frame, and I had, I think, four supers on top, working on the principle that if we give them room enough they won't swarm. I have had them leave the hive after the young queen hatched out. I have had them leave the hive without a queen. The bees come out with the young queen. I found the hives queenless because the queen did not go back, but the bees came out all the same and left the hive without a queen. I believe in clipping every time as soon as they begin to lay. I don't think they are superseded any sooner on that account, because one year I had one hive hatch out one queen after another; they were young queens and could not keep the colony up to its normal strength. With regard to them becoming dissatisfied with the queen coming out, I have had them

where I captured the queen and put them back again, and the old bees drove them out. They will do the same thing with queens whether they have wings or not.

Mr. Hall—Our friend talking about clipped queens in hives or swarm catchers, if I am permitted, I will relate to you gentlemen that, in four days in an apiary of 225 colonies of bees, we had 18 swarms in three days. We had no swarm catchers, we had all clipped queens, and we hadn't all hard work. We let the queens into the cage, and let them stay there till we could attend to them. We had no means of catching them, only in clipping them. I have had as many as 8 of these swarms hanging together. True, they didn't all want to get into one hive, neither did they want to go into any hive, but they came back. The chief object of clipping queens is to keep a record of their age, and to keep them from going to the woods. If you contract your brood nest they are very apt to be dissatisfied with it. If they try several times and cannot get off, they will then go to work. You can do that with clipped queens, but other queens you can not.

Mr. Newton—The question of clipping queens ought to be just about threshed now. I heard a question asked brother Sibbald, if he got the drone comb out in the spring, and the thought struck me, how does that brother hive his bees? I think it is a point we ought to have some discussion upon. As far as mine is concerned, I don't have any drone comb to come out in the spring. I very rarely look for it because in hiving a swarm I contract my hives to either 5 or 6 frames, and therefore have very little, if any, drone comb at all.

Mr. Atkinson—There is one question I would like to ask concerning the clipping of queen's wings. Do the gentlemen who practice that put back the queen into the old hive? Say, for instance, there is an old swarm of bees with a clipped queen; do you take that swarm and return it back to the same hive without taking out the cells?

Mr. Hall—Never.

To the Merits of the C. B. J.

I have read a great many bee papers, but none of them throws as much light on the subject as *The Canadian Bee Journal*. I owe my success as a bee-keeper to the perusal of its pages.

ALBERT J. CUNDICK.

Warwick, Sept. 8th.

Honey for Market

-By R. F. HOLTERMANN

In selecting the above subject as a topic for the Annual Meeting of the Ontario Bee-Keepers Association Convention, I chose it because it gave abundant ground to cover. It might almost embrace the entire subject of bee-keeping, but my intention is to confine myself to a very small portion of the field. I need not enlarge upon the importance of decreasing the cost of producing honey by having strong colonies for the honey flow, not only by bringing them well through the winter, but by giving them judicious care from that time until the honey flow begins. To many this alone is the battle ground for profit or loss in bee-keeping. Beginning with the supers, a beginner should ask himself, if he shall produce comb or extracted honey, and what are the advantages and disadvantages of the two systems. Not counting the cost of the supers which can be used from year to year, and remain with the bee-keeper, a hundred pounds of extracted honey can be sold without disposing of any of the Apiarian Supplies. In one hundred pounds of good comb honey however, he has to give with the honey 120 sections at a cost of about 50 cents, enough thin super foundation to fill 120 sections, 73 cents, ten comb honey crates \$1.00, a total of \$2.23. In large quantities this may be diminished somewhat, but with a beginner this is not far astray. The cost of material which has to go with the sections is then just about 2½c. per section. The moment a man places a value on comb and extracted honey, he runs the risk of having some one trample on him, but I believe that the interests of many demand that his subject should be taken in hand, and if any of the figures given are not satisfactory, you can do your figuring on a basis satisfactory to yourselves. First-class comb honey in this Dominion of ours is selling all the way from \$1.00 per dozen sections to \$2.50; the price varying according to season, locality, honey crop &c., or running from 8½ to 21 cents per section; when you deduct 2½c from that, leaving from 6½ to 18½ cents per section. In the tens of thousands of pounds of comb honey our company has

handled, and many more transactions I know of, I have yet to hear of a case where the seller was paid for his comb honey crates. First-class extracted honey sells in Canada at 6 to 15c per lb., more frequently at 6 cents when purchased in large quantities, such as 1,000 to 5,000 lbs, and comb honey at 11 cents. The difference thus far on first-class honey is ½ to 2½ cents per pound; but have we considered the entire difference of cost? I think not. Those who consider that in production 70 lbs. of comb honey is equal to 100 lbs. of extracted honey, are considered by the majority of bee-keepers as over-estimating the ratio of comb honey; many more say it is 50 to 100 lbs. I am inclined to believe that with the best management the first is right, but with a bee keeper not thoroughly experienced, or not having time to apply his knowledge, it may be even less than the latter, but taking the ratio of 70 to 100 lbs. 100 pounds of extracted would bring generally \$6.00, while the 70 lbs. of comb honey would generally bring \$8.40. With 2½ cents deducted, which is the cost of foundation, sections, and crates, this leaves \$7.30, a difference of 30 cents. For the sections must be folded, the foundation put in the supers, wedged up and put on. These supers must not be put on too soon lest the bees spoil the foundation and soil the sections. Increased care must be taken, and with every caution there will be a greater tendency to swarm, a snag against which beginners and other bee-keepers are so likely to run.

In extracting, we have the honey to take out and the empty combs to replace. To offset this in comb we have the bees to drive out of the sections, the comb to scrape, the grading, the nailing of the comb honey crates, and the packing.

If the above figures are correct, it does not pay to produce comb honey with the present market difference. If the figures are not correct I trust that the above will give some food for thought and everyone can adjust prices to his own condition.

Thus far we have referred to first class comb honey, but we know that the beginner and the man busy with other de-

partments in life, cannot give his bees the close attention necessary to produce first class honey. Consequently he produces comb, poorly filled, travel stained, light and dark mixed, with the result that it increases the cost per pound of sections and foundation with anything but a corresponding increase in the price of the product, and the producer becomes a loser. We might leave such a man to his fate, but our association receives a Government grant, and we receive it to benefit bee-keepers generally. But this cull comb honey receives much greater attention than it merits. Market quotations appear to glory in giving the lowest prices, and if in Toronto, Montreal, or some other cities a few culls have been sold at 6½ cts. per lb., the public, without explanations, see in the press that comb honey is selling at from 6½ cts. to— The tendency of this is to depress prices, few men can resist a low offer when told that some one is selling at that price. I know individuals may be in a position to say they keep up prices, but the question is, are my statements in the main correct? and if they are is it not in everyone's interest to discourage the production of inferior comb honey?

COMB HONEY FOR MARKET.

Having made an effort to throw some light on the relative profit in the production of comb and extracted honey, let me say, in producing comb honey for the market it is desirable to keep colonies strong, to know when the supers should go on and when they should come off. In going through the country I have time and again seen sections on the hives, even freshly put on, when there was not the slightest hope that the bees would do anything with them. I have seen them on colonies so weak that they could not take care of a full brood chamber, to say nothing of these supers, and producing surplus honey suitable for market. While we find such frequently the case, these errors can be comparatively easily avoided. To prevent inferior honey from being stored in the sections is, however more difficult. The bringing from the brood chamber into the super interior honey, and the storing of early gathered honey, can be avoided, first by shifting and uncapping honey, compelling the bees in strong colonies to convert dark honey into brood. If the bees require more room than the brood chamber affords, the extracting supers should be put on, and if there is any spare energy let the bees pull out

sheets of foundation. Combs thus newly built offers an excellent opportunity for washing the color of the honey coming in from day to day, and at the opening of clover just as soon as the bees cease bringing in (or up) dark honey, the sections are put on. To avoid cull sections towards the close of the season, we then change to extracted honey. This system has been the most satisfactory to us. Although we depend upon buckwheat as a crop, we do not consider, if it can be avoided, that it pays to finish with dark honey sections having a considerable quantity of light honey.

Extracted Honey.

In extracting honey a little too much does less harm than not enough. Two or even three supers on one hive can be used to great advantage, and this additional investment will do much to help the bee-keeper to decrease the cost of production. In running for extracted honey the danger of having dark honey carried up from the brood chamber is greater than with comb honey. To watch the extracting supers at the opening of the season would result in much less inferior honey being put upon the market. Better extract a little early honey then, than have a lot of well ripened dark honey. Even during mixed and unfavorable seasons a fairly good article can be secured by holding each extracting comb up to the light as it is taken in hand, and at the first extracting uncapping only such combs as show the light color through the capping. The practice of exposing a large surface of honey in so-called ripening cases placed in an ordinary temperature, is in ninety-nine cases out of a hundred altogether wrong. The honey becomes thinner rather than thicker. A simple test can be made of this by taking a plate, putting upon it a layer of honey 1/16 inch thick, the honey set out in the atmosphere generally becomes thinner. If it takes up moisture on the plate, it will be almost sure to do so in the open can. This is contrary to the opinions of those I have met thus far, but it can easily be tested. Seasons vary it is true, but after the close of the honey season there is generally a considerable quantity of moisture in the atmosphere.

Our Markets.

Too much time has already been taken, but we must study our markets, and put our produce in the most acceptable and reliable shape. While catering to the demand for very small packages, we should do everything in our power to discourage

them. There may be several reasons accounting for the fact, but when honey was at least not less in price, 5, 10, 20 lbs. and even greater sized packages were generally used, and the very small packages were unknown. Neither the consumer or the producer has gained anything by this. Comb honey not well attached to the wood should be sold at home, otherwise it may disappoint everyone connected with it.

There is at the present time talk of a European market for honey; should this develop, then, more than ever, will it be necessary to aim at a higher standard of perfection in the article. Such a course would result in a wonderful expansion in our home market.

I have of necessity had to leave much unsaid, but the sooner the idea is exploded that honey is simply honey, and all of the same quality, the sooner the public know that it varies in quality, just as much as butter, the better for everyone.

In closing let me say, a larger return for capital and labor expended means greater profit; to secure the larger return we want a greater quantity of produce, or a better article, or both, and upon this the question of producing at a profit, or loss, hinges to a greater extent.

I trust a discussion may follow, throwing an additional light on the subject.

Spraying.

To the Editor of the Canadian Bee Journal.

There has never been a year in the history of Ontario in which apples have suffered as much from fungus diseases and the coddling moth as in the past summer. Orchards which in 1896 bore a thousand barrels produced not a single barrel this year. In the beginning of the season the promise was good but where the trees were not sprayed every apple fell upon the ground. The advantage of spraying have been so patent this fall that there will be a perfect epidemic of spraying in the spring, and that by the least progressive portion of the community who bungle it. Last year a well known bee-keeper not far from Toronto lost bushels of bees, let alone larvae, because a neighbor had sprayed when the trees were in bloom. The present warning is not effective; it has to be looked for instead of staring you in the face. Could not the Ontario Bee-keepers Association see to it that the Government place in every post-office obtrusive notices like those concern-

ing the San Jose Scale, warning those guilty of this practice that not only are they losing their labor but burning the bloom with arsenic as well.

H. R. ROWSOME, Burlington.

The Bees and the Drones.

"I tell you, my friends," said a big wasp at the busy bees' convention, "I'm sick and tired of listening to those disgruntled, discontented, dissatisfied, dyspeptic, demagogic bees who are continually howling against the drones. Why, my friends, if it wasn't for the drones, you'd starve to death! The trouble is, you haven't half enough drones in the hive; that's the reason you can't get rid of this omnipresent overproduction which causes hard times." (Great applause.)

"Now let us reason together," said the wasp. "It's as simple as a, b, c. The more drones you have, the more honey is eaten. The more honey is eaten, the more work you have producing the honey. Do you follow me? And work is what you're always looking for, isn't it? (Vociferous applause.)

"Now, my friends, I repeat, let us reason together," continued the wasp. "Let us suppose you didn't have a single drone in the hive, what would you do with all your honey, I'd like to know?"

(A voice: "Why, eat it ourselves, of course!") Cries of "Order! Police!")

"And if you didn't have drones," continued the wasp, after the commotion had subsided, "who'd support your churches and seminaries? Who'd endow your hospitals and libraries? Who'd subsidize your colleges and newspapers? Who'd contribute to your soup-houses and foreign missions, I'd like to know? Why, my friends if you didn't have drones, you wouldn't have anyone to be kind to you and give you charity! You wouldn't have—

(A voice: "We wouldn't need charity if we didn't have drones!") Meeting breaks up in confusion.—Dan Cavanaugh in Appeal to Reason.

The Christmas Number of the Mail and Empire, Toronto, is distinctly Canadian throughout. The pictures are the work of Canadian artists, the literary matter is from the pens of The Mail and Empire staff. The engravings, the paper, and the work are all Canadian. It is sold at fifty cents a copy.

U. S. B. K. ANNUAL MEETING

The twenty-ninth annual convention of the United States Bee Keepers' Union was held on the 13th and 14th of September in the Commercial Club Rooms, at Omaha, Nebraska, commencing at ten o'clock.

President Geo. W. York, of Chicago, Ill., presided at all the sessions.

The first session on the 13th, was begun with an invocation by Mr. A. I. Root, of Medina, O., and the first session on the 14th was opened with a prayer by Dr. C. C. Miller, of Marengo, Ill., and one or more songs were sung at the beginning of each session.

The first paper, by Mr. O. O. Pappleton Stewart, Fla., on "Honey Production in Cuba and Porto Rico," was read by the Secretary, and was followed by discussion. Mr. H. Lathrop, of Wisconsin, said the paper didn't say anything about foul-brood, of which there is said to be a great deal in the West Indies.

Dr. Miller thought that if the duty on honey, amounting to twenty-six cents on the gallon, was removed, it would not make a half cent difference per pound on honey in the U. S. Mr. E. Whitcomb, of Friend, Nebraska, doubted if the removal of the duty would affect the price at all. Mr. L. D. Stilsan, of York, Nebraska, said that a soldier from Cuba told him that we had no reason to fear Cuban honey, for it was much inferior to honey produced in the U. S.

Mr. E. R. Root, of Medina, O., said that Southern honey had a strong flavor, which is liked by some. Mr. A. I. Root had sampled Cuban honey and did not find it insipid, but strong. Most localities yielding both good and poor honey. Mr. F. Dauzenbaker, of Washington, D. C., has sold much honey in Washington that was produced in North Carolina and Virginia, that was as white and good as any honey. He found that children like strong flavored honey the best, and the older people like the light colored honey the best.

Mr. Joshua Grey, Draper, Utah, said that the people in his region prefer the flavor of sweet clover honey to any other.

Dr. Mason said that the sweet clover honey produced by his locality last season was not first class honey owing to the

peculiar flavor. Having some left over from last season I melted it in a solar wax extractor and got some first-class honey weighing over twelve pounds to the gallon, it having weighed but eleven and a half pounds when extracted, although the combs were thoroughly sealed before extracting. I used to believe that extracted honey could be ripened in cans or barrels, but I gave up that belief several years ago.

Dr. Miller has perhaps 1500 pounds of sweet clover honey on hand that was so green when extracted that he would not offer it to his customers. He has put the most of it through the wax extractor the past summer "and it is nice." He says it weighs 12½ pounds to the gallon now, but weighed 11½ pounds before going through the wax-extractor.

Mr. A. J. Root said when he was in Salt Lake City he tasted samples of sweet clover honey that was equal in looks and flavor to any honey in the world.

Dr. Mason had produced some sweet clover comb honey this season, but it was darkened some with honey dew, but it was well ripened and rich in flavor.

Some one asked the question, "Doesn't pure honey sometimes make people sick?"

Mr. Cameron had noticed that comb honey sometimes does, and didn't know but it might come from the bees crowding over the honey and depositing the poison from their stings. It might not make all sick, but presumed it would some people.

Dr. Mason said, some people can't eat any honey without being made sick, but a very simple remedy and preventative for this trouble is to drink milk when eating honey.

Dr. Miller—There is formic acid in honey, but I am not so sure there is any real bee-poison in honey. I doubt whether anything gets into the honey through the sting of the bee, and the latest investigations show that the bee-sting is entirely separated from the formic acid.

Mr. Whitcomb—Honey taken by the robbing process often makes people sick, while that taken by the bee-escape process does not, such cases having come under my observation.

At the beginning of the afternoon ses-

sion the Secretary read a paper by Mr. W. F. Marks, of Choppinville, N. Y., on "Organization Among Bee-Keepers."

In the discussion following the reading of the paper, "Co operation" was also discussed.

Dr. Miller—I believe the one thing we ought to do above all others is to press for membership in the Union. We have had many good conventions, but our membership has always been a fleeting one; only those who attended become members. We have gotten out of that track a little, but we want to get out of it entirely.

Mr. York said that perhaps methods of securing membership might be suggested.

Mr. E. R. Root said there was no state in the Union that had so many local organizations as New York State. I think there are something like a dozen counties well organized. The one in Seneca County has something like seventy-five members, and they meet once a month during the honey season. The society in an adjoining county has about sixty members, and Thompkins County has a membership of about 100. There is scarcely a farmer in these counties that does not keep some bees. In these organizations they recommend bee-keepers to take some bee-paper, and to become members of the Bee-keepers' Union.

Mr. Lathrop, of Wisconsin, said we have several bee-keepers' organizations in our State, some of them quite prosperous. A good many of our bee-keepers have been members of the National Bee-Keepers Union, and we voted to recommend that the National and the U. S. Unions should be combined, for our members are slow to join the U. S. Union. Having had the protection I needed in the old union I have not joined this till to day, and I would like to see the members of that organization come into this. I think that would be a good step towards what you are talking about now.

Dr. Miller thought that one of the greatest things to help increase the membership is the influence of the bee-journals. They have done good work, and possibly a little more work in the same line will do great good. Perhaps they need a little encouragement by knowing that we recognize their work. Then it might be a good thing for those who write to the papers to mention the matter and urge all to become members of the Union. I doubt if there is any one thing that will do as much to increase the membership as that.

Dr. Mason said, we all feel under obligations to the bee-journals for what they

have done for the Union, and I'm sure they are ready to do all they can.

Dr. Miller—I do think they can do a little more if they want to, and I don't think we ought to do anything to stop them.

President York—Perhaps it would be all right if I asked Dr. Miller to tell the publishers in what way they can be more useful. There are some things that publishers don't know, the same as with Dr. Miller. I think one great help to the publishers would be this: Let the Union do some real live active work and let us report it. That would help more than anything else.

Mr. Frank Ranchfuss, of Colorado—I am of the same opinion as the gentleman who wrote the paper; we should organize county and state societies, and the national organization should be the head. I think it is feasible. It is done in Germany, and I don't see any reason why it should not be done here. Every one who is a member of our state organization derives some benefit in buying his supplies. If they see that by paying fifty cents for membership they can save \$5 00, they will join every time. We have 150 members and more coming.

Honey Production in Our New West Indian Possessions.

The coming Americanization of Cuba and Porto Rico present many interesting problems to us as a people. This is especially true with bee-keepers; with some because of a contemplated removal to one of those islands, and to all because of the inevitable effect on our business.

It is possible my two years experience in Cuba enables me to give some idea of the good and bad features to be found there. But I understand better than almost any one else can that the subject can only be skimmed in an essay like this.

Cuba is, without doubt, one of the finest honey countries in the world. I consider it as fully the equal of California, and in some respects superior. Should Cuba be annexed to the United States, thus not only doing away with all duties on honey shipped to this country, and duties on hives and implements from this country, but in time improve facilities for transportation all over the Island itself, it will, I think, affect the honey market of this country, far more than the great crops from California have yet done. It is well for us to look these facts square in the face.

At present there is a Cuban export duty of six cents, and an American import duty

of twenty cents per gallon, over two cents per pound on honey from there. These duties and the wretched government of the Island itself, are what has kept our markets from being flooded with Cuban honey. Remove these two conditions and the result is plain.

There are but few movable comb apiaries in Cuba; so far as I know, less than a dozen in all, nearly all of them managed, if not owned by Americans. It is exceedingly difficult to get reliable statistics of the amount of honey annually produced at these apiaries, but from such facts and figures as I did get while there, and since, I judged that any well managed apiary of 300 or more colonies is safe for a yield of from 40,000 to 70,000 pounds of honey each season. As there are chances for locating such apiaries all over the Island, it can easily be seen what an enormous harvest can be obtained.

One great advantage Cuba has over any other place I know of, is that an entire failure to secure a fair crop is almost, if not quite, unknown. As well as I can learn the poorest crops will be fully fifty per cent. of the largest crops. All bee-keepers can fully understand the advantage of these conditions.

The principle disadvantages are the duties already mentioned and the bad roads, making it so costly and difficult getting honey to a shipping post. This last difficulty is so great that many owners of bee-gum apiaries in the interior of the island, so I have been repeatedly informed, practice saving the wax only for sale, pouring large amounts of honey on the ground to waste.

While there are scores of trees and plants yielding some honey, the great bulk of the crop comes from a plant, or rather vine, known to American readers of our bee journals as Bell-flower or Campana. Its Cuban name is Aguinaldo (literally a Christmas present, so called because of its being in full bloom at Christmas time.) Scientifically it is a convolvulus, not a Campanula, as was figured in one of our periodicals several years ago. (Genus *Ipomoea*, Species, *Sidicifolia*.)

The few species of the genus found in the States are known as Morning Glories, only one of which, *Ipomoea Batatas* (Sweet Potato), is of material value to the human race. All the species of the genus I know of are vines with heart shaped leaves and bell shaped flowers, the one which furnishes so much honey in the West India Islands being the most profuse bloomer of them all. At times the bloom is so abund-

ant that hedges and stone fences look like snow banks from a distance. It commences to bloom late in November, continuing until late in February, January being the month of greatest bloom, with December a close second. The quality of its honey is good; color white, with good body and rather mild and pleasant flavor. It is the equal of white clover honey in color and body, and in flavor I would rank it as next to that best of all honeys. Other plants and trees furnish some honey, but the Royal Palm is of the most value I think; not because it gives any surplus honey, but because it yields every day in the year, and seems to be the only source of honey from May to September. Many colonies, unless fed, will starve to death during the summer, and many more would but for this tree.

Large apiaries have been the rule in Cuba; all movable comb apiaries I know of, having 300 to 600 colonies in one locality. I think this is a mistake but had no chance to learn whether smaller apiaries would do better.

I think it will readily be seen from what I have said, that the main points one needs to look well to when deciding on a location in those islands are, 1st; A locality with plenty of aguinaldo and royal palms. 2nd. Nearness to a port, from which honey can be shipped to a market; and 3rd., very close proximity to a rail road or a good macademized road leading to a port. While there are other desirable conditions that should be secured in a locality if possible, these three I have given are the most important.

My personal experience was in the country a few miles west of Havana, but as far as I can learn, conditions are very similar in the other parts of Cuba, and also in Porto Rico.

I have not attempted to go into the details of bee-keeping in Cuba, as it would be useless to attempt it in a paper like this. Many of the details, which it would be well for anyone who expects to go there to know, can be found on page 539 of *Gleanings for 1889*.

O. O. POPPLETON.

Stuart, Fla.

(To be continued.)

Please find enclosed one dollar for subscription to *The Canadian Bee Journal* for the coming year, as I cannot do without it.

P. H. MUNRO.

Grey Co., Ont.

Notes and Pickings.

—D. W. HEISE.

"I have before mentioned that the best time to remove supers is in the early morning, after a cool night." Quoth ye editor, page 340. Yes, all right, when honey is coming in, and bees are not inclined to "rob." But all wrong when no honey is coming in. My experience teaches me that the evening is the best time to remove supers; because by the morning the bees will have quieted down and not near the amount of excitement will be noticeable during the day; as would be the case, where bees had been disturbed in the early morning. Much excitement at a hive after the honey harvest is always more or less a target for robbers.

American Bee-keeper, 184, J. W. Tefft, tells of never having lost a queen in introducing, by his plan of removing the "whole business," bees, hives and all, to a new stand, place a new hive on the old stand, hunt out the old queen, and place her with the frame she is on, in the new hive on the old stand. Introduce the new queen to the young bees left in the old hive, on the new stand. Thus avoiding the danger of having the new queen come in contact with the old bees, which are the most hostile to her. Mr. Tefft does not say, but I suppose he afterwards kills the old queen, and unites the bees with the new queen, otherwise he would be increasing his colonies 100 per cent.

On the next page of the same Journal, Mr. Tefft is guilty of a crime analogous to high treason. He hints of a plan by which he prevents swarming, (natural) and increases by division to any number desired, (the latter is dead easy). He has no caging of queens, no swarming, no clipping of wings, no cutting out of queen cells, no waiting for seventh day for queen to hatch, and no dequeening, and I have to wonder why he did not say, "even no bees." He gets such marvellous results from three full colonies and their increase, (artificial, I suppose) as the following: Where bees work on buckwheat and fall flowers, honey value \$31; increase \$15; nine young queens \$9; total \$55. The only inkling Mr. Tefft gives us of the system of management necessary for the accomplishment of such results as the foregoing, is: an adjustable brood chamber in a large hive, one that

can be expanded or contracted at will, no further light is given; and unless Mr. Tefft will condescend to explain his method in full, I think it will be in order, for the bee-keepers court to pass sentence upon him in accordance with the enormity of the offence.

At the convention recently held at Omaha, Neb., Dr. C. C. Miller, commenced his paper on "Bee-keepers and Supply Manufacturers" by saying, "Supply Manufacturers and Dealers cannot exist without bee-keepers, and bee-keepers would have a good deal harder time without those who make and sell supplies. So there should be the most cordial understanding between them. What better place to encourage such understanding, than at a convention like this, where both meet face to face." The Doctor's sentiments, as per above, should find a lodging place within every bee-keeper, honey-producer, and supply dealer in this broad America of ours, and especially within that class of producers who are inclined to look upon the supply dealer as being a menace to the best interests of honey-producers. While I would consider it unwise for me, as even a small honey-producer, to go out into the high ways and by-ways, and advise my neighbors and friends to engage in the pursuit of bee-keeping, yet, for the supply dealer to try and increase the sale of his goods in that way, I would not say that he is committing a very great sin, providing his advice is honestly given. If there had not been a demand for supplies, we never would have had the manufacturer, and while he is catering to the wants and demands of bee-keepers, and in a legitimate way trying to create an increased demand for his goods, I cannot see that it should be the bee-keepers prerogative to say he must discontinue his efforts in that direction. Even could it be shown that the supply dealer under certain circumstances might (?) be an evil, equally clear can it be shown that he is an absolute necessity to a large majority of the honey-producers. Since then their interests are to a great extent mutual, let us not be too hard on the supply dealer, it might strain the warm kindly feeling he now entertains towards the producer.

"For some years I have been inclined to think that as long as bee spaces are correct and combs straight, anyone who laboriously scraped his whole apiary every spring was fooling his time away; but I have swung completely around. Now that things are half decent I shall keep them so by scraping every spring.

The advantages are more than one would think."—I. L. Thompson, *Progressive* 313. Yes, brother Thompson the advantages are indeed great. This picker has always practised scraping everything clean at least once a year, and never knew there was so much difference until he got into the yards of other bee keepers who had allowed an accumulation of propolis, and glue, about the tops and ends of frames, and in the rabbets, until everything was practically "steadfast immovable," and in such a state of fixedness, that when an examination of the interior of a hive was desired, the necessary time spent in doing so would more than pay for the occasional scraping of a good many hives. And furthermore, the less propolis we have in the brood chamber at the time of honey flow, the less we are going to have in the section supers.

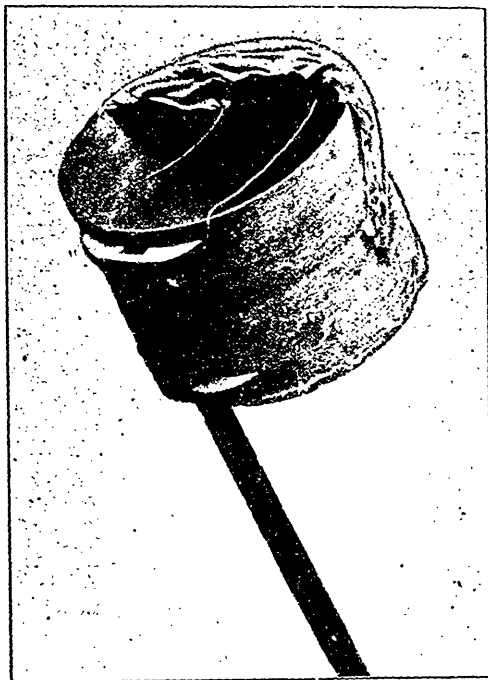
"Honey in glass can be liquified by

simply placing the jars or bottles in the oven of a common cook stove. No fear need be entertained for the safety of the glass, as hot air has not the same effect on glass as has hot water. The process of liquefying is also considerably hastened by the hot air plan; neither is there any injury done to the labels." So say F. G. Quirin, *Gleanings* 845.

"Foreign matter in honey comb reminds me that when I used sheets of enameled oil cloth, I have known the bees to put black enamel in the cappings of sections." —Stray Straw, *Gleanings*.

"A new kink I saw at Omaha, was tumbler of jelly with a coating of paraffine on top to keep it from moulding. Beeswax will answer the same purpose." Stray Straw *Gleanings*. Create an increased demand for wax, eh? [Yes, paraffine four cents per pound; beeswax thirty cents per pound. Next.—Ed.]

THE ALPAUGH SWARM CATCHER.



The above is an illustration of the Alpaugh Swarm Catcher. To the handle is attached a cord which may be extended any length and, after the swarm has been shaken into the box, draws the cover over the catcher. The appliance is also away ahead of the Manum Swarming Device as it can be used to jar the tree. Any practical bee-keeper will see the immense value of this feature.

UNFAIR EXHIBITING.

Feeding Back Old Honey.

[3476.] Regarding the reply to O. Roberts (on page 470) I appeal to you in the interest of bee-keeping generally, and of honey shows in particular, to publish the following explanation of the methods of the exhibitor referred to in the Query of a correspondent whose Query appears on 448. A shadow now rests on the fair fame of Cheshire bee-keepers, and the sooner it is removed the better. Besides, the principle involved is one which affects exhibitors all over the country, and the future success of honeyshows is imperilled if they are once suspected of not being "fair and square." There can be no doubt that the award of the first prize to the said exhibitor at the Honey Show in Chester last month has caused great dissatisfaction and surprise among exhibitors and visitors to the show. The winning exhibit was a sample of beautiful light-coloured honey, whereas no such light coloured honey has been gathered in the district in 1898, nor was there another sample staged at this show. What the exhibitor has done to secure such a sample of honey may have been done in good faith, and with no intention of obtaining prizes unfairly. If he has fallen into an error, let him admit it, and I am sure his fellow competitors would soon forget it. Your correspondent (2123) says that the exhibitor admits the feeding back of the honey, which was afterwards extracted from the supers. The question, therefore, very simply resolves itself into this: "Is it fair or unfair to feed back to the bees in 1898 honey which was gathered from flowers in 1897, and then extracted and exhibited as 1898 honey, when the schedule says 'gathered in 1898'?" These words "gathered in 1898" are understood by ninety-nine out of every hundred bee-keepers who read a schedule of a show in 1898, to mean "gathered from flowers of the current year." This latter sentence I have never seen in any schedule, and I hope the day will never come when such minute details must be given to secure fair showing among the followers of our craft.—FAIRPLAY, Chester, November 26.

I am much pleased with the accuracy and perfection of your goods. The material and workmanship of the frames and comb foundation is excellent, and I believe your goods excell anything in the market.

A. R. MCRAE.

Bear Brook, Dec. 20, 1898.

FOUL BROOD.

How We May Know the Disease.

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

I was a subscriber to The Canadian Bee Journal before its first copy was printed, it has improved greatly since.

ROD. MCLEAN.

Picton Co., Nova Scotia.

I have for several years dealt with the Goold, Shapley & Muir Co. in bee supplies. I have in every instance been pleased with the quality of their goods. I believe their comb foundation is equal, if not superior, to any of the United States make. I have found the firm prompt and correct in business. I hope the above brief testimonial may be of use to you.

W. A. WHITNEY.

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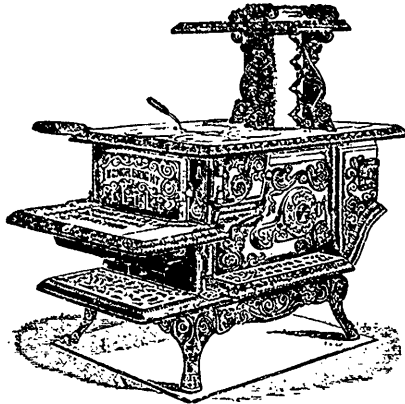
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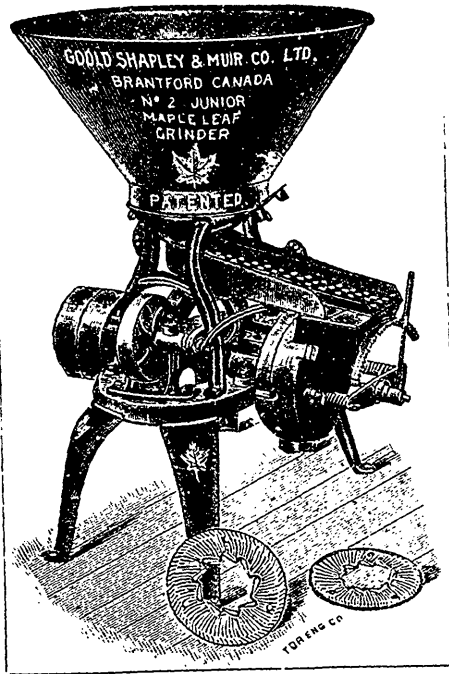
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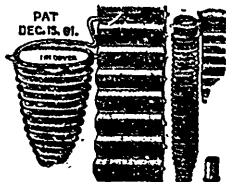
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