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ANNUAL MEETING ONTARIO BEE-KEEPERS' ASSOCIATION

The president called upon Mr. Craig to read his paper on "The Influence of Bee Journals."

Mr. Craig—The subject that has been assigned to me is "The Influence of the Journals." I am sorry that Mr. R. Root is not here to take up this subject with me, as Mr. Root is one who has had much experience with the journals and has made a success of that line of work.

THE INFLUENCE OF BEE JOURNALS.

(By W. J. Craig.)

Considering the subject of the influence of Bee Journals broadly, we may rightly apply much of what has been said, and can be said of the influence of current literature generally. We live in an age of literature, an age when people read a great deal and think a great deal, and whether in the form of newspaper, magazine, book or pamphlet, such reading must necessarily have a large influence over the individual and community, in the formation of opinion, the moulding of character and the regulation of action. The books and journals have taken a distinctive place among the literatures of the world. From recent sta-

tics we find that there are over 80 magazines devoted exclusively to bee-keeping, France leads the way with 19, Germany 11, Russia 9, Belgium 9, United States 7, Austria 6, Italy 3, England, Spain, Algiers and Australia two each, Denmark, Switzerland, Sweden, Norway, Holland, Roumania, the Netherlands, Ireland and Canada one each. These magazines must as a matter of course, have an effect upon the bee-keeping of the many thousands of readers they represent; all of them advocating better bee-keeping, better systems of management, better marketing, presenting new theories, reporting new discoveries and inventions, vieing with each other in original matter from the best authorities, and in carefully selected matter from the most reliable sources, standing up for the right and exposing and denouncing the fraudulent and the wrong. All this can truly be said of present day bee journals. They are, in brief, doing all that they possibly can for the furtherance and development of the bee-keeping industry. This statement may, no doubt, be questioned by those that consider the motive of the bee journal always a selfish one, and that it exists merely for the sake of direct gain to the publisher, or a desirable adjunct to his business. Such a view is narrow, mean and selfish in itself. None of the journals we know of are making a fortune; in fact

some of them would have gone out of existence long ago had it not been for the substantial support of their publishers.

Guide books and hand books on general management are good and useful as references, or for the beginner in laying a foundation of sound apicultural knowledge, but if the novice is to advance, with advancing thought, and advancing methods, he must have access to current bee literature. The bee-keeper's column of the newspaper or agricultural magazine no matter how well conducted cannot be satisfactory to the bee-keeper who would make a success of his bee-keeping, and can never take the place of the journal devoted exclusively to apiculture; in fact, the most dangerous and obstinate heresies that bee-keepers have had to contend with have issued from these sources.

Local conditions and requirements, apart from loyalty to state or country, make the support of the local representative magazine of first importance, then as many others as the bee-keeper feels he can afford. Unfortunately, the great mass of small bee-keepers do not seem to have the proper estimate of the value of apicultural information, they are interested to a very small extent—"only a few hives for their own use" they tell us, but somehow more or less of their ill-favored product finds its way on the market, to the detriment of the excellent article placed there by the intelligent producer. There are probably upwards of 8,000 such bee-keepers in our own Dominion, whose bee-keeping is of the crudest character.

Our Canadian publication needs the co-operation of this association much more than it has been favored with. There is no lack of ability on your part to make the Canadian Bee Journal more distinctly Canadian, and to rank like Canadian honey the 'first of its kind.'

Mr. Holtermann—Mr. President, I am sorry that Mr. Ernest Root is not here. The subject is an important one.

Perhaps the time is rather short for saying much upon it, but as one who is not at all interested now, you may say, aside of what all of you are in the matter of Canadian Bee Journalism, a special journal in connection with Bee-Keeping, I would just like to say, as one who has in the past been in that position and seen its difficulties that as has been said in that paper, there are able bee-keepers in this country, men who are in a position to give to the public and to the press that which would be of great value not alone in this Dominion, but which would be of value in the bee literature of other countries. I would make this plea for The Canadian Journal, a special paper, that you try to support it not alone by subscribing for it, but by contributing to it. There must be small beginnings in everything, and as far as we are concerned, we haven't got the population that the United States and Europe have, and if a journal is to be successful you must help it. The circulation cannot be as large because in the United States bee-keepers take the United States journals first and then afterwards another one; so, if you take The Canadian Bee Journal first, and afterwards the others, that is as I see it, and besides, help it with your pen, and write for it, the time will come when its circulation will increase and in a measure you will be rewarded for that which you may contribute to it. There may be in a journal something which we don't agree with. There must be progress. Allow yourselves to express yourself freely upon the subject of controversy and allow others to do the same and give each one credit for wanting to do that which will advance the interests in the best possible way.

Mr. Deadman—Mr. Craig has made

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the statement that a large number of bee-keepers never take any bee journal. It is really surprising how many there are. It is a disgrace to the bee-keepers of Canada to take any other journal in preference to the Canadian Bee Journal. How many of us would care about being without a journal, and when we have one we should give it our support.

Mr. Smith—I was much interested in Mr. Craig's paper on Bee Journalism. I can remember the time, 25 years ago, when we had no bee journal in Canada. The only items we saw were probably clippings and little paragraphs in the daily and weekly press, and we used to look for those, as beginners, every week, and if we found anything new we would say "there is another bee item." It is really surprising there are so many that do not take The Canadian Bee Journal. They really don't know what they are missing. There are few numbers but what you learn something from. For my part I would not be without it if it cost twice as much, and we take three journals. I think it is what we want, to keep posted in our country at any rate. The foreign journals are mostly devoted to their own countries.

Mr. Grainger—Although I have a little interest perhaps in the American Journal and in Gleanings in Bee Culture, still I am a loyal enough Canadian to wish to see the Canadian Journal prosper. I was well pleased with the last number. I think every bee-keeper in Canada and some that don't live in Canada, should have it. I noticed in Mr. Craig's paper that a little country like Belgium can support eight journals, and if they can do that surely we in Canada ought to be able to support one good Canadian journal or more. I think we ought to try and do what we can to make the Canadian Bee Journal a success.

Mr. Chadwick—I was thinking last

winter if our directors would take a little more interest in this it would be a great advantage to the Canadian Bee Journal. They all have neighbors and if they could speak a word it would be an advantage.

Mr. Holmes—Mr. chairman, ladies and gentleman, I heard of a case where three gentlemen were conversing, an Englishman, an Irishman and a Scotchman, the question of nationality arose, and the question was first asked of the English gentleman, "If you couldn't be an Englishman, what would you rather be?" He said, "I would rather be a Scotchman." In turn the Scotchman was asked the question and he said, "I would rather be an Englishman." Then the question came to the Irishman, and he said, "Faith, if I couldn't be an Irishman I'd be ashamed of myself." Now, if I wasn't a supporter of the Canadian Bee Journal I would be ashamed of myself. I think we should take first the Canadian Bee Journal, and then as many others as we see fit. The "Made in Canada" rings in our ears, and let it continue to ring. (Applaus.)

The President—I am afraid one great trouble is we are too lazy to do anything for the Canadian Bee Journal. If we would take the time to help the Journal a little it would make it more interesting to us and many others, too.

Mr. Dickenson—I think it would be well that the members of this association endeavored to get another member to join the association and thus subscribe to The Bee Journal. I think if every member would get another subscriber that would do a great deal to help the Journal, and we might pick up from some of those new men that would join the association some one who would not be as "lazy" as some of the members that belong to the Association now.

Mr. Darling—There is one point that has not been touched yet. You know I rather think we all pride ourselves a

little bit if anybody tells us we are thrifty. We come across individuals some of the stamp we heard about a little while ago, "just keeping a few bees for their own use." It is a very hard matter to convince some of these of the benefit of becoming members of the association or taking the Journal. You can't convince them in any way that it is going to be of any benefit. I don't know that I could do better than tell you right here what was said by a man that you would expect better of. Some years ago after this government grant was given to the association in order to help to affiliate societies and the by-laws were made in such a way, there was a certain old gentleman who was well enough up in the community, who had received the highest gift in the power of the people in the county to give him, and who had been looking forward to provincial honors, said to me one time: Would it not be possible for us to get some of this money ourselves, this government grant?" I said certainly it is. He said, "By all means let us have it." I said, "You are one of the men I want to talk to. In the first place we will have to form a county association ourselves and it is going to do all of us and others good. By sending a certain number of names to the Ontario society and complying with certain rules we will get a grant of \$20, if there are not too many societies affiliated. I said we will have to spend this money in advertising the bee industry and promoting the bee-keepers' interests, and use it to the best possible advantage to help it along. I said, "We are not going to get it to put it in our own pockets." He said, "I don't want to have anything to do with it at all." It just dropped right there. That is about the ground they take, not only with regard to affiliated and county societies generally, but with regard to supporting our bee journals or becoming members

of the association. We have this difficulty to deal with more largely in some sections of the country than others.

Mr. Craig—I thank you for the kindly things you have said about the journal, and I hope we will hear from a good many more members of the association and Canadian bee-keepers than we have before. Someone spoke about "Made in Canada." That is all right. We are always proud of the motto, but sometimes we are a little discouraged when we find we have to import so much material to carry out this "Made in Canada." I feel this in connection with the Bee Journal.

FEEDING MEDICATED SYRUPS.

Antiseptic feeding to prevent foul brood, is still largely resorted to in England and probably with good effect for while none of these things are really a cure, they hold the disease in check, and are useful to that extent. Thos. W. Cowan editor of the British Bee Journal, and author of "The Bee-Keeper's Guide Book," recommends naphthol beta. The bees take it readily in the syrup used for fall or spring feeding. "Gleanings in Bee Culture" gives the following directions for preparing it, in a recent number:

"Break an ounce package into an eight-ounce bottle (or half-pint measure, which is the same thing), and pour alcohol on to the powder, and while pouring stir until the powder is all dissolved. Into an ordinary can pour 140 lbs. of water then add sugar gradually until there is an equal weight of sugar—that is 140 lbs. If the sugar be poured in gradually, and the mixture stirred, there will be no need of applying heat; for in this proportion half and half, the syrup will be perfectly clear if it be thoroughly stirred. When the syrup is nearly clear by the stirring, pour in the mixture of naphthol beta and alcohol, and stir until it is entirely incorporated with the mixture. The naphthol beta is a powerful germicide, and is very cheap, and as it costs so little one can well afford to give his bees a feed that will resist foul brood. As this disease is more or less prevalent in the country every bee-keeper, if he be compelled to feed should give his bees an antiseptic food."

Apiarian Exhibits at the Fairs

The following from the "Bee-Keepers' Review" by Editor Hutchinson contains many useful hints on the conducting of honey exhibits and will make profitable reading for intending exhibitors at the fairs.

"For 15 years I did not miss making an annual exhibit of bees and honey at our state fair; and, for three or four years, I also made exhibits at the state fairs of Indiana, Wisconsin, Illinois and Missouri. It will not pay to travel from state to state with an exhibit unless the exhibit is unusually large and attractive—enough so as to win the lion's share of the premiums. On the other hand, it will not pay to get up a large, expensive exhibit, unless it is to be exhibited at several fairs. In order to thus make a "circuit" of several state fairs, it is necessary to charter a freight car, and travel with the exhibit. In no other way is it possible to avoid fatal delays at transfer points. The work is terribly hard there is the packing up at night, and travelling nights in a freight car, the "hurrah boys" of getting upon the grounds, and the exhibit set up in time, and the friendly rivalry with competitors, but there is a fascination about it that, to an old exhibitor, is almost irresistible.

There has been, in times past, some opposition to these apiarian exhibits, on the ground that they were often made by supply dealers who, in their eagerness to do business, did not hesitate to urge a man to effect a sale. If the fruit of the seed sown at these gatherings were a crop of producers, I might admit that, possibly, there would be some injury to existing bee-

keepers, but, after the experience that I have had, I am thoroughly convinced that nothing of the kind occurs; in fact, the exhibition of hives, implements, and large quantities of honey tastily put up, impresses the crowd with the true importance, magnitude and complexity of modern bee culture; imparting the idea that the bee business is quite a business—one that cannot be picked up and learned in day by some Tom, Dick or Harry.

Anything that increases the consumption of honey is a benefit to the pursuit; and, as usually managed, these bee and honey shows call the attention of crowds of people to the excellence and deliciousness of honey as a food; and the producer and consumer are brought face to face. At a fair, people are abroad with a disposition for sight-seeing, investigation, and the purchase of novelties and nick-nacks; and a fine display of honey, together with its sale in fancy packages, can not help benefiting the exhibitor as well as the pursuit. Honey to be sold at fairs ought to be put up in small packages. It may be difficult to put it up in packages so small as to be sold at five cents each, but I believe it has been done, while there has been no difficulty in putting honey in packages that may be sold for 20 or 25 cents each. People at fairs don't wish to be burdened with heavy or bulky packages, and the honey must be put up in such shape that it can be eaten on the grounds, or else carried in the pocket or handbag with no danger of leakage. I remember that, one year, at the Michigan state fair, Mr. H. D. Cutting sold nearly \$40 worth of honey put up in pound and half-pound, square, glass bottles, and in glass pails. One year, at the Detroit exposition, at least 1,500 pounds of "honey jumbles" were sold at a cent apiece, by three exhibitors in the bee and honey department. These

"jumbles" are made with honey instead of sugar, and, for this reason, retain the desired amount of moisture for a long time. In selling them at a fair a box of them is opened, placed upon the counter, and tipped slightly outwards, so the visitors can easily look into it. The cakes are round with a hole in the middle, and the upper side is of a golden yellow, with a sort of granular appearance that is very inviting. This side of the cake is turned uppermost. Paper sacks are filled with cakes, putting five in a sack, and a neat placard announces: "Honey Jumbles; Made with Honey Instead of Sugar. Five in a Sack and Five Cents a Sack." Another thing that may be sold at an apiarian exhibit with even greater profit than the honey jumbles, is honey lemonade—if the weather is hot, if it isn't, there is no use of attempting its sale. Here is the way to make it: Into 12 quarts of water squeeze the juice of a dozen lemons, add two pounds of basswood honey and a teacupful of sugar. Basswood honey being of such a strong flavor, gives more of a honey flavor. Keep the lemonade cool with ice in some large vessel. I used a stone ware churn. Keep on the counter a glass pitcher filled with lemonade, putting in small pieces of ice, also a few slices of lemon. Then have a placard read: "Honey Lemonade: Most Delicious Drink on the Grounds; Only Five Cents a Glass." I have sold as high as \$20 worth of this in one hot afternoon, and the profits are at least three-fourths. Such exhibitions and sales certainly do the pursuit of bee-keeping no harm, while they bring a profit to the exhibitor.

Neither ought the social feature to be overlooked. Every bee-keeper attending the fair hunts up the "Bee and Honey Department," and the only one who has been at an exhibition knows of the many new acquaintances thus formed, and the old ones that are re-

newed. It is well to have on a day set apart as "Bee-Keepers' Day" giving the date in advance in all of the bee journals. Then all bee-keepers will be present on the same day. When possible to do so, it is an excellent plan for two or three, or more, exhibitors to club together, and take a tent, or a portable house, each bringing his share of bedding, provisions and utensils, and live a la picnic during the fair. Some of the happiest hours of my life have been spent in going through just such experiences with boon companions.

I doubt very much if the exhibition of bees at fairs is any great advantage to the pursuit. The most that can be said in its favor is that they attract attention. There is certainly no necessity of exhibiting full colonies, unless it might be at some permanent exhibition that is to last several months when the bees can be allowed to fly a la house apiary, provided the apiarian department is on the second floor. A single-comb nucleus with a queen and a few drones and workers, together with the brood in different stages of development, can be made to show more that is really interesting than can be shown with a full colony.

Of course, it is impossible to go on and cover, in detail, all the points in regard to the planning and putting up of an apiarian display, as circumstances vary greatly, but here are a few hints: Extracted honey should be shown in glass. Not in common green glass, but in white flint glass. Have tin foil over the corks and small, tasty labels. Aim to get a white, or light-colored, background for extracted honey. A dark color gives it a dull, or muddy, appearance. I know of nothing better, or more appropriate, for this purpose, or as a background for any apiarian display, than honey producing plant pressed and mounted on white card boards and the cards tacked upon

the wall back of the exhibit. A pyramid of extracted honey in bottles, in front of a window, is a beautiful sight; the light "shimmering and glimmering," as it passes through the bottles and their contents. Comb honey must be in cases with glass next the comb. For several years, I exhibited honey built up into a circular pyramid. First there was made a stout, board wheel, perhaps eight feet in diameter. This was placed perhaps two feet from the floor, being supported by blocks or boxes. Attached to the edge of this wheel, and hanging down, for all the world like a woman's skirt, was a sort of valance made of blue cambric ornamented with some design of gilt paper fastened on with paste. Around the edge of the wheel, upon its upper surface, was set a row of shipping cases of comb honey, with the glass sides turned out. On top of this row was set another row, the cases of this row "breaking joints" with the ones below. Perhaps four rows were placed in this manner, then the cases were turned so that the long way of the cases faced outwards, a fewer number of cases making a row that was slightly smaller than the others. Perhaps four rows were put up in this style, then they were again changed so that the narrow ends were outwards, which again reduced the size of the circles was gradually diminished as the pyramid increased in height, until its top was only about two feet across. That these cases might not be jarred out of place they were fastened to one another by means of small wire nails. Upon the top of this pyramid was set a large number of two-pound square bottles of honey. On top of the bottles was laid a platform of glass, made by putting together two sheets of double-strength glass bound together at the edges with cloth pasted on and covered with gilt paper. Upon the glass platform was set more bottles, then an-

other sheet of glass a little smaller than the first one, and so on, up, until a pyramid of extracted honey was constructed upon the pyramid of comb honey, the former being surmounted by a huge bouquet of golden rod. I remember building one such pyramid that was 16 feet in height. The spaces between the outer ends of the cases in the comb honey part of the pyramid were filled with small "dime" bottles of honey. By thus combining the comb and extracted honey display one "sets off" the other; in fact my competitors sometimes complained of this, but it was their privilege to have taken advantage of this fact had they so chosen. Mr. M. H. Hunt, one year had a castle in which the pillars were cases of comb honey piled up, and the balustrade was formed from panels of beautifully molded beeswax.

There is seldom a fair ground with no bees near it, hence no honey should be exposed. All honey should be shut up close, and no stickiness left on the outside of the package. Wax should be molded into fanciful shapes—statues or something of that sort, if the exhibitor has the skill to make them. Fruits, vegetables, ears of corn, and the like, may be made of wax by first making molds of plaster of Paris, from the objects themselves. It is not necessary that the articles be solid wax. First soak the molds in water, then pour in a small quantity of melted wax, close the molds, and then immediately shake them vigorously, while the wax is cooling, thus coating the inside of the molds with wax. When the wax is cool it will come out all in one piece.

Let the beginner not try to show a multitude of things, but let what he does show be as good as it is possible to make it. Competition is so very keen, at least where the premiums are liberal, that it is folly to expect premiums on second-class articles.

A judge should never be compelled to

take an exhibitor's word for anything. Let the article exhibited show for itself. Don't offer premiums on samples of different kinds of honey, when they can be so easily gotten up for the occasion by mixing. Don't put at the head of the list, such requirements as "Honey must be of this season's crop;" or, "Must be the product of the exhibitor;" when there is no way of knowing whether they are lived up to or not.

In my experience one man to award the premiums, and he an expert, has given better satisfaction than three judges. It is difficult and expensive to get three men that are experts, and even then, the work is not always done so conscientiously, because it is not so easy to place the responsibility; each being able to shield himself behind the "other two."

Upon this point of judging there is one other point often neglected, that ought to be printed in connection with the premium list, and that is a "scale of points" for deciding in regard to the merits of exhibits. Particularly is this true in regard to honey. I would suggest the following: Color, 5; body, 5; flavor, 5; comb—straightness, 5; color of cappings, 5; completeness of cappings, 5; uniformity, 10; style, 10. Possible number of points, 50. By "uniformity" is meant the closeness of resemblance in the sections composing a specimen. "Style" includes the attractiveness of the section and case; also the absence of propolis.

If a bee-keeper is going to make an exhibit of apiarian products, it often happens that he can also make exhibits in other departments of the fair. I have exhibited photographs in the art department canned fruit in the fruit department, and the wife and children have sent things to their respective departments. In addition to this, when making a "circuit" of the fairs I used to write them up for the Country Gentleman, getting paid for the work.

Fairs come in the fall, after the busy season is over with the bees, and if a man has the time, taste and ability for this kind of work, going from one State to another, as I have done, he can probably clear \$10 a day for five or six week in the fall. It is scarcely worth while to prepare for the work, however unless there is some expectation of following it for several years.

Just a few parting words to the beginner: If you make an exhibit at the fair don't get excited. Keep cool and have patience. Many unpleasant things may occur but don't worry over them; and above all don't let the loss of expected premiums so "sour" you as to spoil your own enjoyment and that of your comrades. When you leave home have everything in readiness as nearly as possible to put right up. Pack everything carefully, but in such a manner that it can be quickly and easily unpacked. I used to pack the square bottles of honey in boxes furnished with partitions of cellular board, a la egg crate, and to pack the bottles it was only necessary to drop them into the openings and nail down the cover. If the package does not indicate its contents, then mark it in some way. Never be compelled to open box after box in an exasperating hunt for something that must be had at once. And when the fair is over, don't go crazy to get off the grounds the next minute. I have known of men sitting up all night swearing and sweating, and fuming, because "their car didn't come," or something of that sort, and we all went out on the same train the next morning. At the close of a large fair an immense amount of goods are on the grounds; they have been several days in accumulating, and it is impossible to move them all in an hour's time.

Observation begets knowledge, and knowledge is power.—"The Schemers"

Programme Ontario Bee-keepers' Association Convention, Toronto.



Wednesday, Thursday and Friday, November 15th, 16th, 17th.

Wednesday, November 15th—

- 2.00 p.m.—Minutes and discussion.
- 2.30—President's address. Vice-President to open discussion.
- 3.30—Address by Hon. Nelson Monteith, Minister of Agriculture.
- 4.00—Paper read by Mr. R. H. Smith, St. Thomas, on "Systematic Advertising and Marketing of Honey," G. A. Deadman to open discussion.
- 5.00—Question Drawer, Mr. W. J. Brown, Chard, in charge.
- 7.30—Address by Prof. F. Shutt, Ottawa, on the "Food Value and Various Uses of Honey."
- 8.30—Paper by Mr. R. Lowey, Cherry Valley, on "The Production and Care of Comb Honey," Mr. Morley Pettit to open the discussion.
- 9.30—Question drawer.

Thursday, November 16th—

- 9.00 a.m.—Paper by Mr. F. J. Miller, London, "Are Amendments Necessary to the Foul Brood Act?" Mr. A. E. Hoshal to open the discussion.
- 10.00—Paper by Mr. John Fixter C. E. F., Ottawa on results of experiments. Discussion opened by Mr. W. A. Chrysler, Chatham.
- 11.00—Official reports.
- 2.00 p.m.—Paper by Mr. Morley Pettit, Belmont, on "What Can be Done to Make the Association More Useful to Bee-keepers," Mr. J. L. Byer to open the discussion.

3.00—Election of officers.

- 4.00—Question drawer, Mr. J. Alpaugh, Galt, in charge.
- 7.00—Address by Prof. F. C. Harrison, O. A. C., Guelph.
- 8.00—Addresses by American visitors.
- 9.00—Address by Mr. Arthur Laing, Ash, on "Bee-keeping in Canada vs. Bee-keeping in Jamaica."

9.30—Question drawer, Mr. John Newton, Thamesford, in charge.

Friday, November 17th—

- 9.00 a.m.—Unfinished business.
- 10.00—Paper by Mr. Dennis Nolan, Rewton Robinson, on out-apiaries, discussion to be opened by Mr. C. W. Post, Trenton.
- 11.00—"Points in Judging Honey, and Where Exhibitors Failed at the Honey Show," by the judges.

The meetings will be held in the vicinity of Massey Hall, where the Fruit, Flower and Honey show will be held on the same dates, and within a short distance of the Elliott House and other hotels.

THE CANADIAN BEE JOURNAL

Devoted to the Interests of Bee-keepers.

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Editor, W. J. Craig.

Brantford, September, 1905

EDITORIAL NOTES.

The circular from the Canadian Honey Exchange committee, which appears elsewhere in this issue and was sent out to each member of the Ontario Bee-Keepers' Association, is the result of a meeting of the committee at Streetsville, on Saturday, August 19. Every circumstance in connection with the honey crop and market was fully entered into and considered. The prices mentioned are probably as near to present value as could be suggested. Eastern bee-keepers may consider that they are rather low, but they must bear in mind that the committee had the whole province to deal with and also to consider how the crop in the other provinces is likely to effect our market.

The committee has very wisely warned against overcrowding the large centres. Here the market for honey usually reaches its lowest ebb and sets the price for the whole Dominion. An example of how the local trade is often neglected was instanced in that of a country storekeeper in a bee-keeping district having to purchase his stock of honey from a commission house in Toronto to supply his customers. Bee-keepers, such things should not be permitted to occur. Make the most of your home market, cultivate it and supply it with as good as you have got and it will repay you in time. Tons of honey might be sold locally, where

there are only a few hundred pounds now being sold, if the commodity was only pushed.

†

The Honey Department at the Toronto Exhibition had a beautiful display of "nature's sweet" this season. There were seven exhibitors, Mr. R. H. Smith, St. Thomas; Mr. George Laing, Milton; Mr. Arthur Laing, Hamilton; Mr. D. Anguish, Scotville; Mr. John Timbers, Cherry Valley; Mr. E. Grainger, Deer Park, and Mr. F. W. Krouse, Guelph. The judging was done by Mr. W. Z. Hutchinson, Flint, Mich., editor of the "Bee-Keepers' Review," who performed the difficult task carefully and conscientiously.

The absence of score cards in this department is, in our mind, a great mistake, and exhibitors should insist on their being provided and used at future exhibitions, as displays cannot be intelligently judged without a proper record of points

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When attending the meeting of the Honey Exchange committee we had the pleasure of being the guest of Mr. and Mrs. Wm. Couse, Streetsville. We had an exceedingly pleasant visit with our friends. Mr. Couse is a very busy man. Besides his apiary he has a large grain and coal business to attend to and then there is the school board and many other such duties that his appreciative townfolk call upon him to assume. Sometimes we members of the O.B.K.A. imagine that all Secretary Couse has to do is to attend to us. With Mr. Couse we visited Mr. A. Adamson, a neighboring extensive bee-keeper and farmer, and the father of six or seven stalwart sons, three of which are starting out on their own account and establishing apiaries of fifty or more colonies on each of their farms. We next drove to Meadowvale, a distance of four or five miles, and called upon Miss M. Treverrow, who is a special

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friend of the C. B. J., and so far as we know at present the most extensive and successful lady apiarist in Ontario, her average this season amounting to fully 130 pounds to the colony of white honey. Miss Treverrow uses the eight-frame Langstroth hive exclusively. Referring to this she humorously stated that she was not one of the "big hive fellows," and does not intend to be.

†

From Streetsville we took advantage of the kind invitation of Mr. H. G. Sibbald, president of the O.B.K.A., to visit his apiaries at Claude, and Belfontaine. Mr. Sibbald is an excellent bee-keeper. In the short time that it was our privilege to spend with him we gained much valuable information regarding his line of management, and trust in the near future that he will find time to favor us with regular contributions to The Journal. His Belfontaine apiary is situated in a sheltered nook at the foot of the great limestone hills that embank the River Credit. The scenery in this district is extremely picturesque. Such an extent of rugged beauty it has seldom been our privilege to see, as we drove from Belfontaine to Inglewood to visit Mr. Alpine McGregor. We had often wished to meet Mr. McGregor. He is a gentleman a little over middle life, of keen intelligence and refinement of manner, but rather retiring in disposition. He lives much at his quiet country home surrounded with his bees and books and things that he loves and enjoys. Mr. McGregor's apiary is the picture of neatness and order and it has this season given him a handsome surplus of first-class honey.

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THE NATIONAL CONVENTION TO BE HELD IN CHICAGO.

Ever since the breaking out of the yellow fever in the South have I been receiving letters from different parts of the country, suggesting that the place of meeting for the National Con-

vention be changed to some Northern city. To all, for a long time, I returned the same reply: "Let's wait and see how things turn out. If the fever is crushed out of existence, or controlled, then we can go to Texas just as well as ever." To a certain extent the fever has been controlled, but there seems to be no probability that it will be done with before the time that has been set for holding our convention in San Antonio. The time has come when we can wait no longer. If a change is to be made, it must be made at once, that bee-keepers may be planning accordingly. Before taking up the matter with the Executive Committee, I wrote to the directors, the editors of the leading bee journals, and to several of the most prominent bee-keepers, asking for their views on the subject. The majority was overwhelmingly in favor of a change. The matter was then taken up with the Executive Committee, and every member favored a change to Chicago during the Fat Stock show, the first week in December. It is possible that some other Northern city has greater claims than Chicago for holding of the convention, but the meeting must be held where reduced railroad rates will be assured, and the Fat Stock show at Chicago furnishes these.

It is possible that there is no real danger from the fever at San Antonio, but the fear of it is real, and would have kept away the Northern people. The bee-keepers of Louisiana and Mississippi would also have been shut up in their own States. Texas has had a slim crop of honey this year, and, taken all in all, a convention this fall in San Antonio would have been a pretty slim affair. I think that even the Texans themselves would rather wait until another year, when, if all goes well, the convention could be held in San Antonio with every assurance of a big crowd.

Arrangements have been completed for holding the meeting in Chicago at the Revere House, corner of Michigan and Clark streets, on the 5th, 6th and 7th of December. This hotel can accommodate at least 300 bee-keepers, and the rates are 75 cents for a room alone, or 50 cents where two occupy the same room. Meals are extra, or they may be secured at nearby restaurants.

W. Z. HUTCHINSON,
Secretary.

NOTES AND COMMENTS

By a York County Bee-Keeper

Best Kind of Hive Tool.

Hardly a week passes without having some new-fangled idea as to "best hive tool," illustrated and described in one or more of our bee journals. This reminds me that in managing three yards I have not so far this season used any kind of tool at all excepting my fingers. To be sure, later on in the season, when any manipulation is necessary during cool weather, something stronger may be needed, and in such cases I know of nothing better than the old-time screwdriver. A correspondent in August "American Bee-keeper" describes a hive tool patterned after a burglar's "jimmy," and made from a piece of carirage spring, which he says is "powerful enough to tear the cover off a hive or the roof off a house, if you have leverage enough." He also adds that it works well with propolized frames. Presume he means Hoffman frames, of the kind Editor Hutchinson is railing at.

Be careful of Quality of Winter Stores.

In view of approaching winter, and the necessity of having good winter stores in the hives, we feel, with the "American Bee-keeper" to "caution our readers who live in cities, towns and villages against permitting their bees storing the juice of electric currents."

Apiaries and Babies.

That extensive Californian apiarist, J. F. McIntyre, in an article in June "Review," says: "It is my opinion that a man cannot run out-apiaries and be as happy as he was when one apiary, one wife and two or three babies were all he had." The "American Bee-keeper" wonders if we are to in-

fer from this that he adds a wife and set of babies with each apiary. While not in a position to answer the question positively, I would presume that such was not the case, as, aside from Mr. McIntyre being a former Canuck to the best of my knowledge such combinations and privileges are only customary in the vicinity of Salt Lake City.

[This would certainly be "bringing them up among the bees;" but, say, how would half-a-dozen be like that "bouncing boy" we heard of arriving at the "York Co. home yard" a short time ago? Afraid there would be swarms absconding, eh?—Ed.]

Bisulphide of Carbon as a Fumigator.

Just at present quite a few writers are advising against the use of this drug, owing to it being of such an explosive nature. If we had combs affected with moths would not hesitate to use it in preference to sulphur which always makes the writer sick. With proper precautions there is no more danger in using the bi-sulphide of carbon than in using gasoline, kerosene and other articles of common use. Of course, it is understood that it is positively dangerous to take fire in any way into a room where the stuff is evaporating.

[We thoroughly agree with you using the same precautions with this drug as with the other explosives mentioned there should be no danger. Besides being much more convenient than sulphur, it is superior in that it not only kills the insects, but also destroys the vitality of their eggs.—Ed.]

Quality of Honey Used by Manufacturers.

Editor Root, commenting in "Gleanings" on a recent sale of 70 casks of loads of honey to the National Biscuit Co., expresses the opinion that the bulk of this honey would be ammount and off-grade. While he may be right in his surmise, judging from conditions,

on this side of the line, am a little doubtful if such is the case. While confectioners use buckwheat honey almost exclusively, the large biscuit factories, where the bulk of the honey goes for manufacturing, will have nothing but good clover honey, or its equivalent in some of the milder honeys of the tropics. They even object to basswood honey, as they claim it carries its peculiar flavor to too great an extent into the finished product.

Speaking of tropical honey, am reminded of the proposed confederation of the West Indies with Canada. Logwood honey from Jamaica already, with a two-cent-per-lb preferential tariff imposed, is entering into competition with our clover honey for baking purposes. Remove the two cents a pound duty and there is no denying the fact that the Canadian honey industry would be seriously crippled, if not entirely ruined. From the phase of bee-keeping, assuredly the proposed confederation is not at all attractive, and it seems to the writer that every one interested in this industry should be up and doing in opposing the scheme.

[Our friends Smith, Laing and Alpaugh could tell us something of what the future of West Indian honey is likely to be, and how much we would be affected by it.—Ed.]

Buckwheat as a Honey Yields.

With quite a number of fields of buckwheat near us, we were flattering ourselves on having quite a surplus of "molasses" for sale this year. The first week it bloomed nectar came in very rapidly, some colonies filling a super. Then the weather turned cool, and although fields have been white for three weeks steady, the bees have no more than boarded themselves. At the same time, near the lake front, we learn that the bees have been carrying a surplus, which would seem to prove what I have long thought to be the case, that the nearer a large body of

water, the more nectar will be secreted by buckwheat. During the week mentioned that honey came in so freely, the weather was hot and damp, with cloudy forenoons. It certainly was an eye-opener to us who know hardly anything about buckwheat to see how rapidly the dark stuff comes in under favorable conditions, one strong colony noted carrying in 20 pounds surplus in two forenoons.

[We think that you are right about the effects of a moist atmosphere on the yield of buckwheat nectar. We have had good reports from the lake district this season; in fact, these districts seldom fail.—Ed.]

Quality vs. Display in Exhibition Honey.

Doubtless it is quite necessary to place considerable stress upon display in honey exhibits, but we think it hardly fair that sometimes miserable thin stuff (even if it is water-white) should have the preference over a well-ripened article, not quite so white or as tastefully displayed. Our attention was called to one sample at the Canadian National which was of splendid color but woefully lacking in body, and we were informed that just such a sample in a previous exhibition was awarded the red ticket. In the interest of the production of good honey, conditions and regulations of fairs should be of such a nature that, while they would in no way discourage neatness, etc., the paramount issue to influence judges in their decision should be the question of quality.

[When "display" is called for in a prize list, one naturally expects "display" to count most points. In the smaller lots of the same class "quality" should always come first. This, we should think, would be fair to both the larger and smaller exhibitor.—Ed.]

How to Make Money With Out-Apianes in Canada.

Under the above "catchy" caption friend A. Laing of Hamilton contributes

a readable article in August "Review." Being a Canuck with a couple of out-yards, with "money" as the main objective, naturally the subject was of interest to your humble servant. We note that, in common with some of the rest of us, Mr. Laing wants to get as much of said "money" as possible, with as little work as possible. He advocates large hives, full sets of tools at each yard, good locations and outdoor wintering in packed hives, with all of which the writer heartily agrees. Regarding the swarming problem, Mr. Laing believes in having a man at each yard, one "upon whom you can depend to carry out your instructions to the letter." He cites as one advantage in favor of the plan that you are "not obliged to have more than one super, as he can extract the honey as soon as it is ripe." Amateurs who could do this thing successfully in our locality are few and far between; in fact, feel quite sure that if there is a surplus of stock in vicinity of Hamilton, possessing qualities like those described re "carrying out instructions to the letter," said surplus can easily be distributed among the bee-keepers of Ontario by a little advertising. As to my own opinion regarding the advisability of having a man at each out-yard, when I consult this old body of mine it says "Hire the help," but from a monetary standpoint past experience says "It pays better to do without the man." Not so many years ago we hired a young fellow, capable and honest enough, but withal human like the rest of us. His sole duty was to watch for swarming and cage queens when they issued and let swarms return. One day at noon, during the height of the honey flow, we dropped in unexpectedly and found our man sound asleep on an improvised cot in the honey house. To be sure, we don't know how often this occurred, but we do know that at close of the season

that yard was all demoralized compared with the other yard, which I visited periodically and with no dependence on any one else.

Proper Place to Store Honey.

Just a few days ago had my attention drawn to the necessity of bee-keepers always telling consumers of honey where to keep it. A lady who for a number of years has bought a few pails of honey from me remarked as I was leaving the door after delivering some honey this year: "I suppose the best place to keep it will be in the cellar?" We happened to know that the cellar in question is a very damp one, and if the honey in previous years has been stored therein we are not at all surprised that this family's consumption of honey has been so limited.

[Don't you think it would be well if bee-keepers would send printed directions for liquifying and keeping the honey with each package supplied, whether large or small? Such would serve to enlighten the purchaser regarding granulated honey and prevent mistakes like you have described.—Ed.]

INDUCEMENTS TO POULTRY MEN.

Splendid inducements are held out to poultry breeders by the Central Canada exhibition association for the fair, September 8 to 16. New regulations in the interests of poultrymen have been passed, and the price list increased. Among the new regulations is one that no visitor will be allowed into the building during the cooping, which will take place at 4.30 on Friday, the 15th. A selling class has also been added, and the Ottawa Poultry Association is offering fifteen silver engraved spoons in competition. Those who have not yet exhibited at Ottawa's fair may well give it a trial this year.

FEED FOR BEES AND FEEDERS.

"How has the season for honey proved with you this year, Mr. Doolittle?"

"The crop of white honey is scarcely up to the average this year—probably not more than fifty pounds of section honey to each colony in the spring. I do not have it all off yet, but judge that fifty pounds will be what I shall get. Have you yours off yet Mr. Brown?"

"Yes, and it is very little, indeed, what I have. I do not think I have more than an average of twenty pounds to the hive, and what I have is badly colored and mostly from mustard. But that is not the worst of it. My bees have little honey in their kegs, and there is very little buckwheat sown, the farmers having put cabbage in place of buckwheat and it seems to me that I shall be obliged to feed mostly for winter stores."

"There is scarcely any buckwheat, but I think the bees have sufficient for winter stores now if they can only procure a living from now till October, which I hope they may."

"Well, if you had my prospects, what would you do?"

"I think I would wait till about the 15th of September, and then if the bees did not have sufficient stores for winter with no immediate prospects of their getting such, I would feed."

"Yes, and that is just what I wished to talk about. How, and what shall I feed?"

"Have you any honey in frames hung up for the winter?"

"No. If I had the matter would be different."

"Then you will have to feed sugar." "Yes, and I wish to know how best to feed it."

"Some make it into candy, similar to the candy used in the cages for sending queens by mail."

"Yes. I am told so. But is that the best way?"

"That will do where colonies have nearly honey enough for wintering; but if greatly short I doubt the advisability of so using."

"Well, what would you do?"

"My way has been, where colonies had to be fed for winter, to make a syrup as follows: Put 15 pounds of water into a vessel that will hold from 24 to 30 quarts, placing the same over the fire till it boils, when 30 pounds of granulated sugar is slowly stirred in, so that it will dissolve instead of settling to the bottom and burning."

"Is it liable to do this without the stirring?"

"If the fire is hot, and the 30 pounds is poured in all at once, it is so heavy that it will stick to the bottom and burn before the water will get under it. After you have the sugar stirred in, wait till the whole boils again, when you will set it from the fire and stir in 5 pounds of extracted honey. This will make fifty pounds of feed, fully as good as honey for wintering, and some claim better."

"What is the extracted honey put in for?"

"To keep the syrup from crystallizing in the feeders and probably in the combs, if the colony is small to which it is fed."

"But I thought that vinegar or cream of tartar was used for this purpose."

"So it is by some; but I find that the honey answers a better purpose, and helps along with the feed just so much."

"But suppose one did not have the honey. What then?"

"It might be well in that case to use the vinegar, as some fear that foul brood might be obtained if the honey of commerce were used. But if you have been prudent you will keep a little extracted honey on hand to use in emergencies."

"Well, after I have the syrup, how am I to feed it?"

"At this season of the year, I prefer to feed it from feeders, as the bees carry it where they wish for winter, and seal it up better than they do where it is poured into the combs, as is a good plan in times of scarcity during the fore part of the season."

"But suppose a person has no feeders."

"Then the alternative is to make them or use such dishes or pans as you may happen to have about the house."

"But won't the bees stick fast in the feed and be drowned, if the syrup is put in such things?"

"Yes, unless you make a float to keep them from doing so."

"How is this float made?"

"Some use pieces of shingles, shavings, corncobs, and such like, but I do not like any of these as they all soak up quite a lot of the syrup. My plan has been, when using such, to fill the dish with syrup, after which I pull up two or three handfuls of green grass and scatter over it, renewing this grass every time I fill the dish. If a milk pan is used you will rarely have to fill it more than twice, and generally not more than once."

"I see. The grass being green and full of sap, it will not allow of any soakage as long as it is green."

"That is correct; and, besides, the bees can work all down and through it so that not a particle of the feed will escape them, while with other floats, more or less of the feed will remain underneath them, as they are too heavy for the bees to move."

"But how do you get the bees to work in these pans?"

"After having the pan filled as I have told you, set it on top of the hive another hive, surplus arrangement, or and place over it the cap of the hive, something of the kind, making all secure, so no robber bees can find their way to it. Set up a small piece of

board, chip, or something, of the kind, so that the bees can easily climb over to the feed when a hole is to be opened to the hive below in some way the most convenient in accord with the hive you use, for the bees to come up through. Now, scatter a few drops of feed down through the hole, and over the chip, when the bees will attend to the rest, after you cover all up securely. However, if you have a little time at your command to make feeders, you will find them more satisfactory."

"How, are they made?"

"From fourth-inch stuff, or something thin like picture backing. Get out two pieces of wood the same size as one of our frames, less half an inch at the top. Nail these on each side of the frame, fitting the joints together with white lead, so as to prevent leaking. If, after making, hot wax or paraffine is run all over the inside, there is no possibility of leakage, and all soakage of the feed into the wood is prevented also."

"I suppose this feeder is to be hung in the hive in the place of a frame."

"Exactly. And to fix for pouring the feed in it is best to bore a hole through the top-bar the size of any funnel you may chance to have, when, by turning up one corner of the quilt covering your colony, cutting a slit in it, over the hole, or boring a hole in the right place, the funnel can be inserted and the feed poured in. If a slit in the quilt is cut, the hole in the same will immediately close on the removal of the funnel. If a hole is bored through the cover, a cork of the right size can be used in closing the hole."

"But how about a float for this feeder?"

"As the feeder is only an inch wide there is no need of a float, as the bees can easily catch hold of one side or the other of the feeder and crawl out of the syrup, so that very few, if any, ever drown in any feeder not over an inch wide. If the feeder is made wider than this a float of some kind is necessary." — Conversations with Doan, little," in "Gleanings in Bee Culture"

A PARRY
 SOUND
 APIARY

Editor Canadian Bee Journal:

Dear Sir,—I am well pleased to give you a short history of my bee-keeping in connection with the photo which I send herewith. In the latter part of July, 1900, I bought two swarms of bees for \$8, and brought them home over 40 miles of a rough road by wagon. When I got home I could scarcely tell what I had; the nearest I could come to it was a mixture of honey, bees and comb. I put each swarm on a screen and washed them clear of honey, and saved in this way about one-quarter of the bees; was lucky to save the queens. There was not nectar enough for the bees to gather to live on, and so I had to feed them with sugar syrup. I had then two good hives to put into winter quarters (outdoors). They came out all right the following spring, and that season they increased to seven, and I took a little over 200 pounds of honey from them. In 1902 they increased to 15, but I lost one the following spring. In wintering I left the hives on their summer stands, put each hive in a larger case, leaving six inches of space all around; this I filled with dry sawdust. I took off the covers from the hives, put on Hill's devices with burlap cloth over each and a cushion filled with dry sawdust or straw on top, and filled the six-inch space above with sawdust, put a waterproof cover on the top of the outside case and left them for the winter. I left the entrance full width of the bees—three-eighths opening. In this way I wintered successfully, but it was too expensive. I then built a cellar of stone on a hillside, covered with

oak beams and double floor with two feet of sawdust on floor, and lumber roof; this I find the most convenient. In this cellar the temperature does not vary more than two degrees, while the bees are in it, from 46 to 48 degrees Fah.

On the 10th of November, 1903, I put in 85 hives, and that winter lost only ten, when the reports from other places were 60 to 70 per cent loss, and these 85 hives, with few exceptions, were by the end of December about starving. I found a way to save 75 out of the 85. I put my hives in the cellar without the bottom boards, on beams 18 inches from the floor, with honey boards left on the hives as they are used in summer (I use honey boards instead of cotton quilts) and tiered up four and five high, put strips 1x2 inches between each tier, so that the bees could move from one comb to another with ease. I left an eight-inch space between each hive on the row; this eight-inch space answered for examining the bees as well as feeding. The feeding part, which was done with sugar syrup, made of equal parts of sugar and water—the best Redpath granulated sugar. I used tin dishes, which I placed on blocks high enough to reach the cluster of bees under each hive to be fed, and I put cut straw in the dishes to prevent drowning. Remember, that by leaving the eight-inch space by the height of the hive and no bottom board leaves the full cluster of bees in view, so that the feeding can be easily done. The bees will take one dishful of warm syrup up in two or three hours, and fed twice a day for a week, will leave the hive O.K. in the spring. I put 112 hives in the cellar in November 1, 1904, and they came through in splendid shape. Of course, I might say it is always best to give the bees all the feed they require in September; give no less than to make the hive,

bees and all, without the bottom boards, weigh 50 pounds.

I find the eight-frame Langstroth hive quite satisfactory for this northern part of Ontario. I am able to manage so that I can keep the bees almost entirely from swarming, a system of which I may write upon some time later. I intend to double my hives every year until I reach about 500, then they shall swarm no more, or very little. I am a member of the O. B. K. A., and I would like every bee-keeper to become a member of the same, for in union is strength, and becoming members of the Association will strengthen the union and help ourselves at the same time, in regulating the honey market, driving out adulterated stuff that is flooding the market. Bee-keepers, wake up and let us come together to protect ourselves.

WILLIAM BRUNNE.

Arnstein, Ont.

[We are pleased to learn of your success, friend Brunne, and of how you fed your bees in the cellar. Of course, we would not advise practising winter feeding; it is good to know that it can be done under extenuating circumstances when fall preparations cannot be carried out. Sorry that the engraver was unable to make a satisfactory picture from the photograph of your apiary. Perhaps you will be able to send us a better one when you favor the Journal with a description of your plans for the prevention of swarming.—Ed.]

FIRST MERIT AWARDS AT THE CANADIAN NATIONAL EXHIBITION, TORONTO.

Best and most attractive display of 50 pounds of extracted granulated clover honey, in glass—Arthur Laing, Hamilton, Ont.

Best and most attractive display of

50 pounds of extracted granulated linden honey, in glass—Arthur Laing, Hamilton, Ont.

Best display of 300 pounds of liquid extracted honey—George Laing, Milton, Ont.

Best 300 pounds of comb honey, in sections—David Anguish, Scottville, Ont.

Best 24 sections of comb honey—R. H. Smith, St. Thomas.

Best 100 pounds of extracted liquid linden honey, in glass—George Laing, Milton, Ont.

Best 100 pounds of extracted liquid clover honey, in glass—John Timbers, Cherry Valley, Ont.

Best 100 pounds of extracted liquid honey, any other variety—John Timbers, Cherry Valley, Ont.

Best 20 pounds of extracted liquid clover honey, in glass—Arthur Laing, Hamilton, Ont.

Best 20 pounds of extracted liquid linden honey, in glass—Arthur Laing, Hamilton, Ont.

Best 20 pounds of extracted liquid buckwheat honey, in glass—John Timbers, Cherry Valley, Ont.

Best beeswax—George Laing, Milton, Ont.

Best foundation for brood chamber—E. Grainger & Co., Toronto.

Best foundation for sections—E. Grainger & Co., Toronto.

Best exhibit of apiarian supplies—Gold, Hapley & Muir Co., Brantford.

Best and most practical invention for the apiarist, never shown before at an exhibition of this Association—H. R. Smith, St. Thomas.

The most tastefully and neatly arranged exhibit of honey in the apiarian department—R. H. Smith, St. Thomas.

Best display of 200 pounds comb and extracted honey suitable for a grocer's window or counter—E. Grainger & Co., Toronto.

Best exhibit of bees with queen—E. Grainger & Co., Toronto.

THE CANADIAN BEE JOURNAL

CANADIAN HONEY EXCHANGE CROP REPORT FOR 1905

The Committee sent out a form to each member of the Ontario Bee-keepers' association, asking the amount of honey produced and the condition of the fruit crop. We regret that only about half the members have reported at this date.

After carefully considering the reports, the Committee find that there has been a fair to good crop of honey in Southern and Western Ontario, and in the Eastern counties there has been a light crop, and from information received the crop in Quebec and the Maritime Provinces has been fair, but owing to heavy losses in bees the bulk of honey will not exceed last year.

We estimate that about 75 pounds of honey per colony has been secured. We find very little old honey in the hands of bee-keepers or dealers.

Comb honey seems more plentiful than last year, but is not by any means a large crop. Good prices should be realized for it.

The fruit crop is reported generally light, and apples particularly so.

We believe that the price of honey is materially reduced by bee-keepers shipping their product to large centres, such as Toronto and Montreal. Often the home market is left comparatively bare. We would advise that bee-keepers cultivate the home market.

From the above conditions the Committee are of the opinion that the following prices should be obtained by the bee-keepers for their honey:

For retail grocers and dealers:
Extracted white honey, 7½c in 60-lb
; 8c in 5-lb and 10-lb; 10c retail.

Comb honey, No. 1, \$1.75 to \$2 per
cwt.

An allowance of 10 per cent off these prices should be made to wholesale buyers and commission merchants.

H. G. SIBBALD,
W. J. CRAIG,
W. COUSE,

Committee.

Windsor, August 19, 1905.

THE INFLUENCE OF LARVAL FOOD ON THE PROSPERITY OF THE COLONY.

(Paper by R. Beuhne, Esq., Before the
Victorian Bee-keepers' Association,
Melbourne, Australia.)

At our last annual meeting we had a very valuable address from Dr. Cherry on "The Growth of the Grub." Dr. Cherry demonstrated by scientific reasoning that ill-nourishment of the larvae results in lack of vigor, and impaired vitality in the perfect insect. It is not a question of the quantity of food, but one of quality, a deficiency of nitrogen. As bee-keepers, we know that a deficiency in quantity of larval food is corrected at once by the worker bees in restricting brood rearing, or, should it occur suddenly, by throwing out eggs and even larvae. We have no proof, however, that bees can discriminate as to the quality of the pollen and even honey, in fact we do know that they sometimes have recourse to substitutes; they occasionally store flour for pollen and fruit juice for honey, both of which decompose in the combs under certain conditions of atmosphere. Assuming, however, that bees will use these substitutes only under stress of circumstances which would be evident even to the bee-keeper, and leaving them therefore out of consideration, the report of the analysis of pollen we have received from Dr. Cherry shows that the percentage of protein—that is, nitrogen—in a digestible form is very variable in different kinds of pollen, ranging from 27 per cent down to 17 per cent. As you all know, larvae under normal conditions are supplied by the nurse bees with all the food they can absorb, and in the case of queen larvae with a surplus, so that deficiency in quality could not be made good by additional food. Taking the best sample of pollen and the worst—that with 27 per cent of protein and that with only 17 per

cent—we find the larvae consuming the latter get more than one-third less protein in the same quantity of food than the former, resulting in feeble resistance to disease germs in the larval stage and weakness, predisposition to disease, susceptibility to cold and premature wearing-out of the perfect insect. Having been the first some years ago who suffered severe losses from the mysterious mortality of bees, which has made its appearance in many other localities since, I have naturally taken great interest in the matter right along. The view I first expressed that the cause was one of food was much opposed and ridiculed for some time. I have found no reason so far to alter it. When all the facts connected in reference to this trouble were put before Dr. Cherry he came to the conclusion that it was a question of quality of food.

Dr. Cherry's address at our last annual meeting explained the scientific reasons for this conclusion, and gave me fresh stimulus to try and find out how far this is borne out by facts. I made enquiries into all the cases of disease that came to my knowledge, and in every case where the mortality was not actual starvation of the adult bees or virulent paralysis, it appeared to be the result of defective quality of food. As instances Mr. Bennett lost over 70 per cent of his colonies in one apiary last spring, while in another apiary of his six miles distant they came through in a normal way. Mr. Jackel suffered heavily with bees he shifted to north of Bendigo, while those he left behind were all right. I myself lost a few and had all the colonies very weak in the home apiary. While at the out apiary only six miles away they were strong, and there were no losses, although they were the same bees and taken from the same apiary at random. Now in the case of Mr. Bennett's losses and in my home api-

ary brood was raised and bees wintered on Flatweed honey and pollen, whereas in Mr. Bennett's apiary and my own out apiary there was no flatweed and no losses. Reference to report of analyst as published in "Bee Bulletin" will show that flatweed contained the smallest percentage of protein. In Mr. Jackel's case no pollen was sent in by him for analysis; there was a flow of honey from smooth-leaved iron bark during June, July and August. In this case the trouble seems due to honey. In other cases sugar feeding apparently caused the trouble. I think Mr. Davey first pronounced sugar feeding a failure some years ago. Mr. Wills, after experimenting on an extensive scale, endorsed that view, so did many others. Mr. Davey even had an idea that feeding sugar syrup produced paralysis; if he means in the way that dry grass produces bush fires I agree with him. Others think that there is some injurious ingredient in the sugar. During last season I have experimented with sugar syrup, and the two colonies fed turned out to be the worst, or rather weakest, colonies in spring. The chemist for agriculture informs me, however, that the better samples of commercial sugar are almost pure hydrocarbonates, and entirely free from injurious ingredients. Assuming that the absence in sugar of that small percentage of protein which honey contains is accountable for its unsuitability for stimulative feeding, there still remains the fact that under certain conditions, as experienced by Mr. Wills and myself, feeding honey for brood rearing has proved equally unsatisfactory. We are therefore forced to look for the cause in another direction. When flowers secrete honey there is usually a production of pollen at the same time, with, however, some exceptions. On the other hand there sometimes is a great amount of pollen coming in, but no honey. If such pollen is of the proper composition, such as is produced under normal conditions, then stimulative feeding for brood rearing will prove successful, and no bad after-effect will follow.

(To be Continued)