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ANNUAL MEETING ONTARIO BEE-KEEPERS' ASSOCIATION

The Ontario Bee-keepers' Association held its twenty-fifth annual meeting in the Granite Rink, Toronto, on November 15th, 16th and 17th, 1904.

The Secretary read the minutes of the twenty-fourth annual meeting, held at Trenton, Ont., which were confirmed.

PRESIDENT'S ADDRESS.

(By J. W. Sparling, Bowmanville, Ont.)

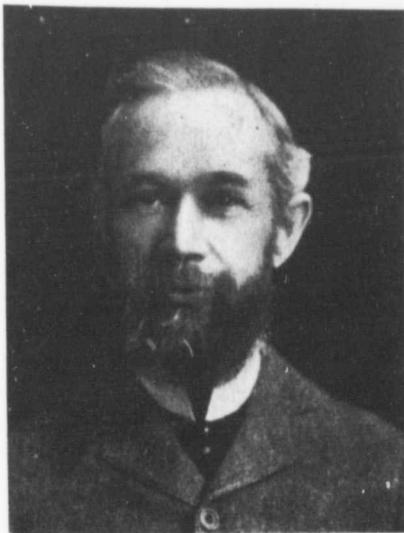
Ladies and Gentlemen:

It is with pleasure that I greet you at this, our annual Convention. This meeting marks the quarter-century of the existence of this Association, and while these meetings are primarily for the purpose of business and mutual instruction, the social feature is one to be by no means disregarded.

A winter of great severity and very heavy loss of colonies to many bee-keepers, has been followed by a summer, on the whole, unfavorable for honey production.

In furtherance of the suggestion thrown out by Mr. James, the Deputy Minister of Agriculture, at our Convention held at Trenton, your executive were requested to meet committees of the Fruit-Growers' and Florists Associations to arrange for a joint

show of "Fruit, Flowers and Honey." Messrs. Couse, Sibbald, Smith and myself met these representatives in this city. After some discussion we were offered \$200 in lieu of our share of the receipts, the other societies to assume all liabilities for fitting up the



J. W. SPARLING, PRESIDENT O. B. K. A.

rinks, furnishing music, heating, lighting, printing, etc.

At a meeting which your executive held subsequently to arrange rules for the show, prize list, etc., it was carried, subject to the approval of the directors, that \$50 be granted by this association towards the prize list.

Another matter of the first importance for your careful deliberation will be the "Amendments to the Foul Brood Act," passed at our last Convention. In this connection I might say that during the last session of the Legislature Mr. Dryden requested Messrs. Hall, Chrysler, Couse and myself to meet him to confer regarding those amendments. Mr. Hall, owing to illness, unfortunately, was unable to be present.

Several matters of importance laid over from our last meeting are to come before you—the suggested decrease in the number of directors being one. Whether the number of directors can be reduced with advantage is worthy your serious consideration and I trust will be considered solely on its merits.

At our meeting we found Mr. Dryden most sympathetic and anxious to do anything to meet our wishes that might promise to be for the advantage of bee-keeping. He doubted the wisdom of the amendments as drawn and pointed out that we were handing over to the local associations, without retaining any control, power to expend the grant made to our association and advised that we as the parent society, should keep the control in our own hands.

After a very free discussion we recommended that the amendments be not brought before the Legislature, but be printed in our annual report in order that the members give them further consideration and that we might bring them before our next meeting for discussion.

This question of Foul Brood I consider one of the most important before us. In a matter of so great importance, it is unfortunate that we have no record to enable us to arrive at a conclusion as to what progress is being made in eradicating the disease in the province. The question is: Are we making progress or merely "marking time."

I have pointed out to our inspector

that his reports convey little information in this regard, and have suggested that he give the work done, by counties, number of apiaries inspected in each county, number in which disease was found, number of colonies inspected in each apiary and number diseased.

In this manner we could gain some idea as to what progress is being made. A plan which I would recommend would be to require the inspector to keep a record book for the executive of our association, giving county and apiary inspected, date of first inspection, number of colonies in apiary, number inspected, number found diseased, date of second inspection and conditions in which then found.

In this manner we would have a permanent record and could see what was being accomplished.

The practice of making complaints regarding inspection to the Department of Agriculture is one, I think, to be depreciated. It is an annoyance to the department and a disparagement of your officers who are entrusted with the direction and control of the inspector, who is the officer of this association. With us lies the power of appointment and dismissal, therefore, this, I consider, the proper place to bring complaints, or, to your officers.

The program which is before you, I think, an attractive one, and I trust our deliberations may be pleasant and profitable.

EXTRACTED HONEY.

(By Morley Pettit, Belmont, Ont.)

The main products of our industry are comb honey and extracted honey, and in this country we produce the latter much more extensively than the former. It will be seen then that my subject is almost as broad as the business itself. It naturally falls into two main divisions:

- (1) The production of extracted honey.
- (2) The care and sale of extracted honey.

The quantity and quality of honey,

produce depends on: (1) Weather, (2) locality and (3) bees.

Weather is beyond our control, but a careful study of conditions extending over several years enables one to forecast with some degree of accuracy and plan operations accordingly.

Locality must be chosen and studied with equal care. The nature of soil, flora and climate are of the utmost importance. The soil should be moist, though not cold and flora of the honey-bearing varieties. It is desirable to have honey coming from early spring until late fall, with two or three days' intermissions, when bees will kill drones and lose the desire to swarm.

I spoke of weather, locality and bees, meaning by the latter:

(a) Race or breed of bees.

(b) Condition of bees.

(a) There are three races of bees which play an important part in Canada—Italians, Carniolans and Blacks. Black bees are the most common and have their good qualities and their champions. They are, however, too excitable to be handled comfortably, and do not defend their hives well from robber bees and moths. The Carniolans are hardy and very prolific. They build up rapidly in spring, but are great swarmers. The Italians are quiet and good workers, defend their homes well and are not so much inclined to swarm.

(b) The condition of bees would include style of hive and management. As we strive for uniformity of hives in the apiary, or set of apiaries, so, throughout the province, country and bee-keeping world, the standard hive should, so far as possible, be adopted. That is the Langstroth hive. For the production of extracted honey I prefer the 12-frame Langstroth with supers of the same size. A good queen will occupy this brood chamber with brood until the fall flow, when she will slacken her operations enough to allow

plenty of winter stores to be crowded in at the sides.

There is nothing about a hive so important as the queen. She is the heart of the colony. From her comes the life-blood, as it were, the young bees to take the place of those which are wearing out and dying. With a good, vigorous queen the brood chamber is kept full of brood in all stages, from the eggs to the young bees emerging from the combs. A populous, energetic colony is assured, ready for any honey flow that may come. A poor queen allows the circle of brood to become smaller and smaller, and the bees get "lazy," according to the old idea. That is, they dwindle in numbers, lose ambition and store but little honey. The sooner such a queen is replaced the better. But the thing most to be dreaded is queenlessness. The bees are working and growing old, while none are hatching to take their places. The combs of the brood chamber, which should be bright and filled with eggs and brood, take on a forsaken appearance, and soon become choked with pollen and honey. I am convinced that if it can possibly be avoided, a hive should not be one week without a laying queen at any time. With the present scientific methods of queen-rearing, and the low price at which queens can be obtained, one should always have a few extra queens of his own rearing, or coming by mail, to use in emergencies. The queen condition of every colony must be carefully watched at all seasons of the year, but particularly in preparing for winter.

The year-round management has a direct bearing on the amount of honey produced. During the fall flow every stock is assured a good queen, good worker combs in the brood chamber and plenty of stores for winter. In preparing for winter, remember, first, that in cold weather bees must supply their own heat to keep the hive at a

living temperature. They also must breathe like any other animal. Third, their breath is laden with moisture. Fourth, as in any other city of 30,000 to 50,000 inhabitants, the death-rate is considerable.

The spring management is quite as important as the winter. It is then the breeding-up for a honey flow is done, and two points particularly must be observed. By all means provide plenty of stores and conserve the heat of the hive. By the beginning of fruit bloom most hives should be ready for a super. At the opening of white clover and alsike in June the dark honey of the previous fall and present spring should all be removed, as far as practicable, from both super and brood chamber. Then put in wedges to enlarge the entrance and put on two supers containing eleven full Langstroth combs each, with excluder to keep the queen in her place.

The month of June is spent struggling with the swarming problem. By all means, so far as in you lies, hold your stocks together and allow no swarming. With plenty of extracting supers the tiering up system is more profitable, as by giving two or three supers to each hive extracting may be postponed until the height of the swarming impulse is past. Then an adequate gang of men taking off 2,000 pounds to 3,000 pounds daily can soon extract the honey. The needed machinery consists of bee hats, smokers and brushes, a light cooper's hatchet for prying and scraping, a wheelbarrow with smooth, tight bottom and rubber cloth for the yard. The extracting-room should be tight enough to keep out bees, but if such a place is not at hand, the smoke from one or two smokers in the room will help considerably to keep them out. This last season I used a six-frame reversible extractor, and now would buy nothing smaller. It is placed on three legs,

high enough to deliver the honey into a band, and has inside a device which strains the honey before it goes out into the spout. This arrangement, for which I am indebted to Mr. R. F. Holtermann, I have found to be a great saving of time and labor. The can for cappings consists of a square galvanized iron can large enough to hold all the cappings two or three men could take off in a day. Fitted within this can is another with perforated steel bottom to hold the cappings up six or eight inches from the bottom and allow them to drain. Wooden cross-bars support the combs being uncapped. The knives are kept particularly sharp and in all our apparatus we study the quickest and easiest way of doing things.

All white honey should be removed by the first of August to avoid any admixture of dark honey. Owing to the great affinity which honey has for moisture, it is better, if possible, to extract on drying days. The process of uncapping and extracting exposes so much surface of honey to the air that a saturated atmosphere would thin the honey considerably. In no case should honey be extracted during the honey flow unless three-quarters capped. It should as soon as possible be put into the packages in which it is to be sold and sealed up. For honey exposed to the air not only absorbs moisture and becomes thin and watery on top, but it loses a certain amount of the delicate flavor and aroma which it has from its native flowers. This matter of the care of honey deserves attention. The producer should understand thoroughly the nature of honey, what treatment will benefit and what will injure it. Then seek at all times to educate buyers in this line. I might mention a few points. Honey is first nectar of flowers. Bees gather and ripen it by evaporation in the hive. The latter process is dependent on the

weather. In dry weather it is ripened quickly and capped. In damp weather little capping is done. In our climate honey extracted thin can seldom be thickened by any process which will not injure flavor and color. The point to be made is that honey should be well ripened by the bees, then extracted dry and sealed up as soon as possible.

The natural condition of honey is first liquid, then crystallized. As agitation hastens crystallization in a saturated solution so it hastens the granulation of honey. Stirring, straining, dripping through cappings, the jar of machinery, changes of temperature which cause contraction and expansion, all hastens granulation. To repeat the comparison one crystal dropped into a saturated solution of a salt causes the whole to crystallize quickly, so a few grains of honey left in the combs or cans from last year, or mixed in the honey make it granulate sooner than it otherwise would.

As honey is a natural product, not manufactured, it should be sold in its natural condition. Many prefer it liquid because they do not understand that it should granulate. As we desire to educate the public to eat more honey, we should teach them that its natural condition is granulated. Of course, we must give the buyer what he wants, but use our influence to make him want granulated honey. The package must be chosen to suit the trade. For liquid honey glass seems to be preferred. For granulated honey use tin, wood, or paper, but not glass. Cultivate the home market. See that every house is supplied. Further points which I have missed will no doubt be brought out in the discussion.

The points I would emphasize are: In the production of extracted honey study your weather, climate and locality. Choose the best breed of bees and the right style of hives, and keep

both in extra condition the year round. Give extra attention to the queens and the wintering and allow no natural, and as few as possible artificial, swarms. Do not extract honey until well ripened, then seal it up as soon as possible. Study short cuts in working. Study your market. Sell to the best advantage possible and make good use of your money when you get it.

Mr. R. H. Smith (St. Thomas)—Mr. President and brother bee-keepers: One of the most important things we have to consider to-day is the production of extracted honey, if we want to increase our trade or hold the trade we have. You will notice a great difference probably between Mr. Pettit's advice and that very often given through the bee journals. We often hear of large producers advocating short cuts to produce large quantities, and also of good quality, but unfortunately there are a great many bee-keepers, especially beginners, who want quantity, but who have not the artificial facilities for producing quality, and very often these methods are adapted to an altogether different climate from ours. Mr. Pettit, I notice, has laid stress on the importance of climate and the state of the atmosphere at extracting time. What would be suitable for a dry climate like Colorado or Texas or some of the eastern countries would not be at all suitable for this province. He has had some little experience with honey produced by bee-keepers who do not give it proper attention in the way of ripening. I have known bee-keepers who brag of how much they can extract in a day. It is not a wise thing to brag about, because usually you will find there was very little of that honey which was properly ripened and capped over. Many think it can be run into tanks and artificially ripened, but it is practically impossible in this climate. As Mr. Pettit says, the proper way is to

have it properly ripened in the hive and seal it up as soon as possible after extracting. It is not necessary that it should lie open in tanks; it only gathers moisture and depreciates more or less even in dry weather. You will find a different grade of honey taken from the bottom of a large tank from what is at the top. I have a sample of honey with me which I will bring up at the next session, that I bought among a lot of honey supposed to be No. 1. There is a great difference between what people call No. 1 honey, and this sample is an illustration of it. Not only is it thin, but it is inclined to sour. If there is one thing that will tend to destroy or spoil the demand for extracted honey it is this kind of stuff. Of course I know there is a certain class that caters for the confectionery trade. They think anything is good enough for the confectioner, and very often the buyer for the confectionery houses doesn't know the difference. It is the price and color that governs them. It is really not fit for table use. It is not real honey at all; it is only partially evaporated nectar.

Mr. Pettit's advice is as sound as anything I know of on the production of extracted honey. I don't know that I can add to it very much. The plan of taking it off not later than August is a good one. There are very few localities where you get a fall honey equal to clover and basswood, and therefore the sooner the light honey is taken off the better, after it ripens.

Mr. Holtermann—Mr. President, there has been one important point brought out here in connection with the production of extracted honey, and that is the thought that the proper place to ripen honey is in the hive, not in tanks. The present general method, I believe, is to store the honey in tanks and leave it there, whatever the object may be, whether for ripening or other-

wise. I am thoroughly satisfied if we could impress upon the bee-keepers generally throughout the province and Dominion that honey should be ripe before it is taken from the hive, our honey, which has already a very good reputation, would have a very much better one. As has been stated, in our climate, with the amount of moisture we generally have, honey depreciates and becomes thinner, rather than ripens, through exposure to the atmosphere, and bee-keepers should store their honey in vessels that can be closed up and made air-tight.

Mr. Smith—It is a common practice among a certain class of bee-keepers to use merely one super for storing, and they think when that is full, and is just beginning to be capped, that that is the time to extract. As you understand, it is almost impossible to get a good class of honey with one super, because a good colony will have that super filled with raw nectar, and it will be in the process of evaporating, and they will be adding to it from day to day, whereas, if they had a super added underneath the first one, the ripening process could go on, with abundance of storage room to keep them going. A good colony will fill up a set of combs in two days in a good honey flow, and what are we going to do while that is ripening? I know some bee-keepers who think that one super is all-sufficient, and yet they wonder why they don't get the yields that others do who use a larger storage capacity.

The President—The point brought out by Mr. Smith is an important one, gentlemen; it is worthy of attention.

Mr. Sibbald—Mr. President, I thought that was a very good paper. It covered all the ground and explained everything, and I think any of us that listened to it and will practise it will have good honey. It is important to take into consideration, the all-year mar-

agement. We must take care of the bees in the fall, the winter, the spring and summer in order to take a good crop and have good honey. The method Mr. Smith just spoke of is a pretty good one generally, but I think to raise a super on a small colony it would not get sufficiently ripened. What I mean is, if a colony were a little weak, and we were to raise the super up and put another one under, the top one would not get ripened very well.

Now, as to the importance of queens mentioned in the paper, it is very important to have a queen all the time. If you have a hive that is queenless through the summer time, it will not be a good colony through the winter; and if it is queenless, or has a poor queen in the spring, it will not be any use for the honey harvest.

As to the locality, of course, a good many of us have to keep bees where we live or move them. We do not like to move, and we have got to make the best we can out of the locality. It is a very good thing to study your locality and get your bees strong for the main flow of honey. That is a good paper of Mr. Pettit's, and I do not think it needs very much discussion. It covered all the ground, and I don't know of very many points in it that I would want to object to, but I would not like to see you all get twelve-frame hives.

Mr. Pettit—In connection with the point that Mr. Sibbald brought out about not putting two supers in a weak stock. In my paper I advocated the two supers, as Mr. Smith emphasized, but where you have not enough supers, or where the stock is rather weak, and you have only one super, a good plan would be to extract a third or half of the best-capped combs from the middle of the super and then crowd the remaining combs to one side and put the empties at the other side. The next time coming around to extract, you will find that the bees have been strong in the empties and finishing

the ones you left at the first extracting; this is the next best thing to having two supers.

Mr. McEvoy—Mr. Pettit, do you consider you can get as good a quality of honey from 36 frames—that is, a 12-frame brood chamber and two supers above—with a medium swarm as you could from an eight?

Mr. Byer—There is one point I believe that has not been brought out in this paper or the discussion which it is not well to overlook. There seems to be a prevailing opinion, not only among beginners, but older bee-keepers, that by extracting sooner we get a whole lot more honey. I think Mr. Alexander of New York, in *The Bee-keepers' Review*, claimed that by extracting before the combs were capped over he would get about one-third more honey. Again, no doubt a number of you have read the article in *The American Bee-keeper* by Mr. Poppleton, where he claims that there is nothing gained by extracting honey before it is ripened. If that is the case, it is something we should acquaint ourselves with. It is a very important question.

Mr. Holtermann—The gain is not in the increased amount of honey, but in giving your bees room.

Mr. Armstrong—Reference was made to extracting from a weak colony or adding another story before it was completely capped over. My method is as soon as I find a case of that kind, and it is not quite ready for extracting, I take the combs from that colony, shake the bees off, and place them over one of my strongest colonies, replacing them with empty combs.

Mr. Byer—Mr. Poppleton claimed that there was no appreciable loss in the weight after the first night; that perhaps in the morning there would be three or four pounds less than in the evening, and if that was a quiet day, and the bees did not get out to gather more nectar, there would be no further loss.

Mr. Pettit—I will answer Mr. Mc-

Evoy's question. There is no use taking a 12-quart pail to milk an eight-quart cow, but I would prefer all 12-quart cows.

Mr. McEvoy—It was not the quantity, but the quality. You take a 12-frame brood chamber, you put two sets of twelve above that in a moderate honey flow, and you take an eight-frame Langstroth, two of them above an eight-frame, which of these will give you the best quality of honey?

Mr. Pettit—If your stocks are good, you want a hive that will hold the honey

Mr. McEvoy—I am talking about quality, not quantity.

The President—Why put on thirty-six frames in a moderate or in a poor honey flow? A sensible man won't do that. If the honey isn't coming in he is not going to give an immense quantity of room.

Mr. McEvoy—If you are going into business extensively in our apiaries you can't always go there and put a super on just when you want to, and don't you think these fellows who are going in for large hives and tiering up, if they overdo it, will get rather a poorer instead of a better quality?

Mr. Holtermann—I would like to ask Mr. McEvoy if he was running out apiaries, and he had a small hive, wouldn't he sooner overdo by giving them too much room, than by giving them too little and having swarms come out?

Mr. McEvoy—I am not talking about quantity. It is still about quality.

Mr. Dickinson—I don't see that we should all be guided by men running out-apiaries. There are a great many bee-keepers in this audience who do not run out-apiaries. If we can look after our eight or nine frame hive and get more honey than we could from a 12-frame hive, why shouldn't we do it? Possibly we run a twelve-frame hive because we haven't time to handle our bees right. I don't know, but it seems

to me that it is no trouble at all to get plenty of room for a colony by tiering up. Three times nine is 27. In a nine-frame hive that is 27 combs. I don't think much can be gained, unless you are an out-apiary man and have got two or three yards, and I wouldn't say but what 12-frame hives might be right then.

Mr. Holtermann—The great secret, in my estimation, in the successful production of extracted honey is to keep your bees together. If you have got strong stocks and they get out early enough you are bound to get whatever is going. I cannot see why there should be any difference in quality because if you keep your bees together there will be more bees in that larger hive, and they will, of course, cover more combs. They will ripen it just as well and perhaps better, than if in a smaller hive, and the stock should swarm; and you know when it swarms a great many of the old bees leave the hive, and leave the extracting supers only partially covered with bees. If you can keep your stock from swarming I believe the tendency is to keep your combs in which honey has been stored better covered, and you will have a better quality. If there is any difference it is in favor of the hive which is larger, and in which you can keep your bees together.

Mr. Byer—Don't you think in the case of a summer season like we have had this last season, with so many extremely cold days and damp nights, with a weak stock if you tier up, they would desert the supers and go to the brood chamber, and wouldn't there be a tendency for the honey to take on a little moisture? In the fall of the year, we know the honey in the hive is sealed over, and it is not nearly so thick as in the summer.

Mr. Holtermann—If the temperature is 90 degrees, and you have filled the upper story in a twelve frame hive,

and you have an eight frame hive with an upper story, when the temperature drops to 90 wouldn't the bees draw down just as much in proportion in the smaller as in the larger hive?

Mr. McEvoy—I think you will find you are pretty badly knocked out if you test that, Mr. Holtermann.

Mr. Sibbald—I would like to answer the question for Mr. Holtermann, because I don't really believe in a big hive. In order to keep the bees from swarming you must not let the brood chamber get clogged with honey, and in a large hive honey is more apt to be put to the side of the brood chamber, than to the top, hence it is impossible to make the division between the brood and honey, and just where it ought to be. If we have a small hive, 8 or 10 frame, I would prefer 10, an ordinary queen can use that brood chamber, and we can work the brood right up to the top bar, and when we put on our top story we haven't any honey below. Just as soon as they fill the top story then we break the division again and put another one on. So I claim we can control swarming very much better with a smaller hive.

As to the ripening of honey and a good quality of honey, unless we can make our bees crowd the honey up they will never ripen it, I have noticed towards the end of the season I will find some that is scattered here and there, and all over, I never get good honey that way; it is always thin. If they had to put all that honey into one or two frames they would look after the ripening of it some way or other. You see the difference between the large and small hive.

Mr. Holmes—This is a topic of the very utmost importance, especially that feature of it when you are discussing the size of hive and it occurs to me that this special matter of the size of the hives should not

be dropped just at this juncture, that it should be if possible, threshed out to a finish, so that it might be known what size of hive is actually recommended by this Association. (Laughter.)

(To be continued)

THE YOUTH'S COMPANION IN '05.

It is impossible even to summarize in a single paragraph the many and varied attractions which The Youth's Companion announces for the coming year.

A series of articles planned to interest especially the forty-five millions of Americans who look directly to the soil for their subsistence will treat of "New Fields for Young Farmers," "The Sanitation of the Farm," "The Future of American Cotton," "How Women Make Money on the Farm." etc.

Seven serial stories and 250 short stories by the most talented and popular American writers of fiction will form part of the contents of the new volume for 1905.

Full Illustrated Announcement describing the principal features of The Companion's new volume for 1905 will be sent with sample copies of the paper to any address free.

The new subscriber who sends \$1.75 now for a year's subscription to The Companion receives free all the issues of The Companion for the remaining weeks of 1904, also The Companion "Carnations" Calendar for 1905, lithographed in twelve colors and gold.

The Youth's Companion, 144 Berkeley Street, Boston, Mass.

If two or three swarms come out at the same time and go together, put them in a large hive and give them plenty of room, and they will soon furnish you with a lot of surplus honey. You need not bother about the queens. Let them fight it out among themselves, as this is very apt to result in the "survival of the fittest." Modern Farmer.

THE CANADIAN BEE JOURNAL

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Editor, W. J. Craig.

BRANTFORD, DECEMBER, 1904.

EDITORIAL NOTES.

The Canadian Honey exhibit was awarded a gold medal at the World's Fair, St. Louis.

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Mr. R. H. Smith, St. Thomas, left for Jamaica November 24. We wish him "bon voyage," and that his highest expectations regarding bee-keeping at the tropics may be realized. Owing to Mr. Smith's leaving, the question and answer page will be held over until next month. Mr. Smith will continue to conduct this department the same as before, but the time necessary for corresponding with him will necessitate the sending in of the questions not later than the 10th of each month.

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We have just received a copy of the A.B.C. of bee culture, new edition, by A. I. and E. R. Root, it is a beautiful book, and, by latest revision, completely up-to-date; has many new illustrations, and new and added matter; no pains have been spared to make this volume one of the finest works on Apiculture published. This edition completes 100,000 copies; a French and a Spanish edition are in preparation, and will be issued shortly. The new English edition is in three bindings, cloth, half leather and full leather, \$1.20, \$1.75, and \$2.00 respectively, post paid.

The annual convention of the Ontario Bee-Keepers' Association has come and gone, and in point of attendance, at least, was the best we have had in some years. The show in connection was a decided success so far as the exhibits were concerned. The small number of visitors was rather disappointing. Toronto has too many other attractions for anything of this sort to draw the citizens, a smaller place would probably be better. We understand that Hamilton has made application for the show next year, and that the Department of Agriculture is seriously considering the matter. Hamilton having no exhibition such as the Toronto Industrial, the Fruit, Flower and Honey Show would be more likely to be a success.

• • •

It was a matter of regret that our American friends, who were on the program, Messrs. E. R. Root, W. Z. Hutchinson and G. W. York, were unable to be attend. The change of date complicated matters somewhat. We were especially sorry to learn of the illness of Editor Hutchinson. His paper on "Queens," read by the secretary, was heard with much interest. Editor Root wrote us expressing his regret at being unable to attend, and says:

"To atone for not coming this time I will make an extra effort to come next year, if the dates do not conflict with something else. I would then bring along my kinetoscope moving picture outfit in which I will show living scenes in the bee-yard of handling a swarm of bees, and some new slides for the stereopticon that I have never shown before at your meeting. I should be glad to bring the whole thing this time, but it will be impossible for me to do so, owing to the condition of our office as mentioned."

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Friend Arthur Laing writes from Morant Bay, Jamaica, giving some first impressions of the new country, which

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are not particularly encouraging. We do not know, of course, but some of the horrors he mentions sound very much like the hob-goblins that frequented the Island of Cuba some years ago. Strange how some of the bee-keepers who went there, succeeded, never-the-less. Mr. Laing arranges his remarks somewhat as follows:

"Sea-sickness.

Scorching tropical sun by day,

Flees by night,

Negroes,

Rats, Mice, Toads, etc.,

Expenses,*\$1.25 to \$2 per day.

Beautiful mountain scenery,

Luscious tropical fruits,

One hundred pounds of honey per colony, which can be sold at 5c to 6c per lb., purchaser paying for containers.

The foregoing, I believe, will be the concensus of opinion of all northern apiarists who may visit this island, unless they run across something more attractive than I have."

* * *

In July last the Dominion government decided to make a display of honey at several exhibitions in England, Mr. R. F. Holtermann, Brantford, was asked to collect 1500 lbs. of extracted honey and also some comb. Only ten days could be given for the honey to reach Ottawa, but comb and extracted honey were secured in sufficient quantities. The following letter is a report of the result, which should be very satisfactory to Canadian beekeepers:

Exhibition Branch, Ottawa,
November 11, 1904.

R. F. Holtermann, Esq., Brantford:

Dear Sir,—Replying to your letter of the 10th, I beg to inform you that we took part in the following exhibitions which were held in the Royal Agricultural Hall, Islington, London:

Confectioners', Bakers' and Allied Traders' Exhibition and Market, Sept. 3rd to 10th.

The Grocery, Provisions and Allied Traders' Exhibition and Market, Sept. 17th to 24th.

Dairy Show, October 4th 5th, 6th and 7th.

At all these exhibitions we occupied 1200 square feet of floor space, and put up an exhibit of food products that was an eye-opener to the British public. The honey attracted a great deal of attention and was favorably commented on by the members of the British Bee-Keepers' Association.

Some of the judges sampled the Canadian honey, and pronounced it equal to any on exhibition.

Yours Very Truly

Canadian Exhibition Commission,
WM. HUTCHINSON,

Commissioner.

Per W. H. HAY.

* * *

A writer in The British Bee Journal, commenting on the honey show at the Confectioners' Exhibition, in London, England, says:

"London is a big place, and requires a large quantity of food, of all kinds, every day; I would therefore impress on our home-producer that if we are not on the alert we have our Colonial brethren close by ready to do business on a large scale, even in our own line. I do hope our bee-keepers will pay a visit to the exhibition, and see not only the British section, but also the grand exhibit staged by the Canadian government, among which is a large parcel of fine section honey, and what is of greater interest to them is the fact that I was told an English firm had bought all the honey staged before the show was opened. Here we see the value of enterprise on the one part, and the breadth of London's requirements on the other."

* * * * *

Canadian Bee Journal and Montreal Weekly Witness clubbed for \$1.75.

NOTES AND COMMENTS

By a York County Bee-Keeper.

Position of Hive Entrances Relative to Yield of Honey.

Some time ago a well-known European bee-keeper conducted experiments in the line of having entrances in different parts of the hive. He reported that when the entrance was made between the super and the brood nest that five times as much surplus honey was obtained as was the case when the entrance was at the bottom of the brood nest. This past season the experiment was carried on again, and it was found that when the entrance was made at the top of the super, under the end of the cover, that the yield of surplus honey was even more than when the entrance was between super and brood chamber. Had these experiments not been carried on by well-known apiarists we would not take time to comment on their remarkable statements. No explanations are offered as to the "why and wherefore" of results obtained. Certainly every one so inclined can easily try a few colonies in the manner suggested and prove the matter to their own satisfaction.

"Rights" of Subscribers to Bee Journals.

Mention was made quite recently by the editor of one of our journals of a conversation overheard between two bee-keepers in attendance at the national convention at St. Louis. One contended that as the subscriber had paid for the paper he was, in a measure, entitled to dictate to the publisher what he should print. The other thought that the paper belonged to the publisher; the subscriber subscribed of his own free will, and if he was not pleased with the paper he could have

it discontinued at any time. While inclined to agree with the latter idea, yet in a measure the former opinion deserves some consideration. A point in question. Just now one of our journals for which I entertain the highest esteem as regards its editorial ability, persists in allowing in one of its departments whole columns of language bordering on the bar-room type. Now would I be justified in discontinuing the paper, or have I a right to expect the publisher of said paper to stop printing stuff that I regard as not fit matter to come before the eyes of my children? In fact, nine-tenths of the parents of the land would reprove their children at once if they heard them using some of the "stuff" I have alluded to. It seems to the writer that in a case like this the editor has a "right" to consider the "rights" of his subscribers.

Bees Crosser Some Seasons Than Others.

Dr. Miller, in *Gleanings*, wonders if bees are not crosser in some seasons than others. Sure thing; and this scribbler wishes to say that, contrary to orthodox teachings, his bees are cross just about in proportion to yield of honey. The larger the crop, the crosser the bees every time. To be sure, this statement does not apply to a time of total dearth of nectar, if bees are handled so as to excite robbing.

That "Popular Fallacy" Again.

Referring to Mr. Poppleton's article, copied in *C. B. J.* for October from *A. B. J.*, Dr. Miller says: "Might be rather severe to say so, but it looks as if the man who puts on the market some of the unripe stuff to be found there is not only dishonest, but a fool as well to spoil his market without any compensating gain."

Sugar Syrup Versus Honey as a Stimulative Food.

Herr Reidenbach, a European authority on apiculture, contends that, while sugar syrup is all right to winter

bees on, yet it lacks certain elements necessary for brood rearing. As is generally known, honey contains quite a percentage of nitrogenous matter, while sugar has hardly anything of that nature. Observations last spring would lead me to believe in the correctness of his conclusions. As will be remembered, last season was extremely backward, and for days and days the bees were confined to the hives. Colonies that were fed heavy with sugar syrup the previous fall did not build up nearly so fast as did those which had abundance of honey and needed no feeding. Other springs, when pollen was coming in freely, if anything, difference was in favor of those that had been fed sugar syrup. Clearly, certain elements necessary to brood bearing are present in honey which are absent in sugar syrup. Fortunately, springs like our last one are few and far between, so we who unfortunately have to feed sugar some falls need have very little fear of bad results.

A Big Yield From a Big Apiary.

Mr. Alexander of New York, who has been preaching the doctrine of having all the colonies in one yard, as opposed to the common practice of having out-apiaries, in a recent issue of *Gleanings*, presents figures which, for his locality and management at least, prove the correctness of his contentions. On the first of May the yard contained 500 colonies, which were increased to 725 by the middle of the month. The yield of honey was $141\frac{1}{2}$ pounds per colony, a total of 70,700 pounds; 600 queens were reared and 3,600 sheets of foundation were drawn into extracting combs. Truly a wonderful yield! My, it is enough to make one almost green with envy to think how we drove all over the country after a few paltry thousand pounds. Just now I see no way of remedying the situation, either, as I feel quite positive the plan would not work in our locality. It is worth while to

note that the bulk of Mr. Alexander's yield is from the buckwheat, which is raised very extensively around him. This, I think, helps to explain the matter. With us, from the time clover was over, a great host of bees in one yard would not nearly get a living from then till cold weather.

Convention Notes.

The annual report of the National Bee-keepers' Association of the United States lies before me. From a hasty glance over the contents one is led to think that the "boys" across the line are just ordinary fellows like the rest of us. Questions, discussions, etc., seem to be about of the same order as are annually rehearsed at our Ontario meeting. That a few of their members seem to monopolize a good deal of the time, as is the case in the Ontario Association, is another coincidence.

However, the National this year made quite a visible change in the nature of their proceedings, as compared with other years. Considerable work was done along the line of marketing, organization and other higher problems confronting the industry. To the writer's mind this is as it should be. We have always thought that manipulation, etc., etc., should largely be left to the journals and local associations. People who were present at the St. Louis convention claim they had a "harmonious" meeting. While this is no great claim for a "National" Association, yet it might be well for some other associations "to go and do likewise." We certainly enjoyed our little meeting at Toronto, even if there was a little "stinging." We already look forward with pleasure to again meeting next year, and hope we, too, can be able to say at its conclusion we had an "harmonious" meeting.

York Co., Ont.

Canadian Bee Journal (\$1) and American Boy (\$1), clubbed, 1905, for \$1.50.

Wintering Bees in Michigan

By F. D. Townsend

There are so many things to take into consideration in wintering our bees here in northern Michigan that I scarcely know where to begin when writing on this subject, but there are two essentials that seem to stand out in my mind's eye quite a little more prominent than anything else, no matter whether we winter the bees in chaff, in the cellar, or in a clamp, and these are outside protection and winter stores. I hardly know which is the more important. Perhaps I would not be far out of the way if I should say winter stores, if we winter indoors; and outside protection, if wintered in chaff. But they should, by all means, both get together if we expect fair success in wintering.

Advantage of a Sheltered Location.

We are starting a new yard three miles north of town, and have selected a place for it, where there is quite a bluff on the north, east and west sides, leaving an acre or so, where we are setting the bees, that is nearly level, and open to the south. These hills will furnish ideal outside protection for this yard. In selecting a protected place, as above, it is essential that the inclosure be not too large, just room enough for the bees and honey house. With this nook of an acre the wind will blow over it and not cause a draft through it, as a larger opening would. Then these hills are loose sand, and I have another use for them; but more anon. We consider this outside protection essential, no matter whether we winter indoors or out. With chaff packed bees in this enclosure they will have many chances to fly during sunny days in winter, when it would be suicidal for

them to venture out where they have no protection from the wind; and these little chances to fly during the winter, giving uneasy colonies a chance to have a cleansing flight, coupled with good stores, appear to be the key to successful wintering in chaff. Then the bees we winter inside need this same protection, especially during the cold, bad weather of spring, when the combs are full of brood and, perhaps, only a scant number of bees to take care of it.

Colonies in single-walled hives need all the protection it is possible to give them.

Winter Stores Must be of the Best.

We are having forced upon us more and more every year the importance of quality of winter stores. Those who have kept track of my previous wintering know I have had quite a large experience with bees in different localities, thus having a chance to test the different kinds of honeys for winter stores, such as clover, basswood, raspberry, buckwheat and asters. During several years I have had, each year, yards of bees wintering on these different kinds of honey; that is, one yard would have white honey, another aster or buckwheat. So you see I could compare the results each spring, and, as the winters were the same in each yard, the results could be figured out easily, with a little allowance for outside protection, as the case might be. Now for the results. "Did the bees all live with the best stores?" "No." "Did they die with the poor stores?" "No." But the percentage was very much in favor of the white early honey for winter stores every time. With a mild winter the difference is not so great, but a cold winter, like last winter, or like one we get every two or three years, it is almost sure death for a colony if they have nothing but this poor fall honey to winter on.

I do not think I can do better than give some figures, showing the results

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BURYING BEES IN A CLAMP "Favor, Bee-Keepers Review"

from two yards, otherwise the same, only one was fed ten pounds of sugar syrup per colony, in addition to what natural stores they already had. These yards were the Eldred and the Pine Lake. Both yards had the same grade of honey, part buckwheat and aster

and a part early white honey. As there was no honey extracted from the brood-nests there was no difference in the quality of these stores that I know of. We fed the Eldred yard 150 pounds sugar syrup, all to light stocks, as they needed this amount to carry them

through the winter. The Pine Lake colonies were all fed 10 pounds each in addition to what natural stores they already had. This feeding was done the last of September, about the time the brood was getting pretty well hatched out, and, as it is natural for bees to carry the outside honey into the centre of the brood-nest at that time of year, it would be natural that they would store this sugar syrup there also, just where wanted for their winter consumption. These two yards contained 98 colonies each a year ago, all in chaff hives, with about the same outside protection. You will remember that last winter was very severe on bees, especially those wintered outside. The result was that the sugar-fed bees came out with 80 good fair colonies alive, while the other had only 65, and a part of these so weak that they did not amount to anything for our early harvest. I will carry the crop report of these two yards out in dollars and cents, then we can better understand what I consider that I realized on an investment of less than \$50 in sugar. As the honey is all sold I find that the Pine Lake yard (sugar-fed) credited with \$658, while the Eldred has a credit of only \$320. In addition, the winter losses were all made up at the sugar-fed yard, while there were only 25 made at the Eldred. Had I have made up the balance of the winter loss, these figures would have been lowered to quite an extent.

Wintering Bees in Clamps.

You will remember I told you above that we were locating a yard of bees, enclosed on three sides with light sand hills. This is the mode of wintering we have adopted at three of our yards, where over 300 colonies will be wintered this way. Dampness seems to be the one great thing to avoid with this mode of wintering. The first essential is a loose, sandy soil. We like a good slope to the ground, then dig our

trench up and down the hill, with surface drain on both sides, to carry off any surplus water that may accumulate. It is also necessary to have as much slope to the cover of dirt as we can have. We keep throwing on sand as long as it will stay in place; or, in other words, the last shovelfuls will not stay on, but roll down. With this steep cover I do not think there will be any water get through the covering. After the trench is dug 6 or 8 inches of straw is tramped down in the bottom, then 2x4 scantling are placed on the straw, the right distance apart to set the hives on. The hives are now put in without bottoms. We also raise up one end of the cover, and slide towards one end until the cleat rests on the end of the hive, so as to give upward as well as lower ventilation. Then we put on the cross-pieces and rails or poles, then a good coat of straw. A four-inch ventilation is placed in the centre of the pit. Then we are ready for the dirt.

You will notice that the cut shows a pit running parallel with the hill. This is wrong, as the surface water working down the hill keeps the bees damp, and causes mould to accumulate in the pit, and in some hives. As to the best number to bury in a pit I have known of good results all the way from 1 to 56; but, some of my neighbors have not had quite as good results with so large a number as this, and as they nearly all report good results with about 30, I shall put in about that number. About that straw on the bottom of the pit. I have asked a good many what object there was for this bottom straw, and all have said they did not know, so we have been burying some without straw in the bottom, and securing good results, and we shall not use any there this fall. When digging them out in the spring I have always noticed that this straw was wet and mouldy, and when there

was no straw, the ground would be dry and the lower part of the hive would be in better shape. Neither shall we use any ventilation hereafter, as the bees seem to winter just as well, or better, without it. We pit the bees in the last half of November, and set them out the first half of April—about the same as cellar-wintered bees are handled.—Bee-Keepers' Review.

THE OTTAWA HONEY EXHIBIT 1904.

Those who remember the unfavorable bee and honey reports for the Ottawa Valley in the early part of the season by directors of eastern Ontario districts, and also by our local reporters, will, on seeing the honey show at exhibition here, not likely next season assume the role of prophets. In every line of life there are so many counter-acting influences, so many hidden, mysterious forces one never even dreams of, that it is in most cases decidedly dangerous to even attempt to predict. The past and present we know; the future to a large extent has been, is, and will be, hidden. The consoling law of compensation re the honey supply this season in this locality has certainly been well exemplified.

The honey display here was away ahead of the ordinary, the general appearance very attractive, the quality (both in comb and the different kinds of extracted) very closely approaching perfection, the quantity not by hundreds or even thousands of pounds but by tons. A few fresh plants in bloom set in appropriate places, rich candy glasses filled with the choicest honey here and there, some small flags toppling towers of honey, sprigs of cedar and spruce in the background—all aided in making a picture greatly admired

and intensely attractive. For several years the exhibitors have been making the beeswax an important feature of the general display. No more is it seen in one large cake, but many small ones moulded in a great variety of figures. The exhibitors numbered only three—Messrs. Brown, Ferrer and McLachlin Bros. Mr. Ferrer of Osceola made a very creditable display for his initial effort. The judging resulted in McLachlin Bros. winning 7 firsts, 10 seconds and 2 thirds, in all \$75; Mr. Brown winning 7 firsts, 4 seconds and 1 third, in all \$35; Mr. Ferrer winning 3 thirds.

Apart from the social intercourse, advertising, prize money, honor of winning, sales of honey, etc, of what value mentally and morally is this tastily put up honey show to the exhibitor. was a thought that came to me while viewing this exhibit. I'll only attempt a partial answer. Ambition would be roused; courage would need to be "screwed up to the sticking point" to compete with keen, wide-awake rivals; foresight and forethought to plan well and wisely; executive ability to carry out the well-laid plans; concentrativeness to set the mind mainly on one object and hold it there until it is completed; watchfulness not only for the different grades of honey, but for objects of interest to make the display fresh and entertaining; ideality or taste to so arrange the various items that each will be in the right place to make a beautiful picture; genuine manliness to cheerfully accept the judge's decision—unless radically wrong—even if unfavorable and to bear success or defeat with equal fortitude. Morally the honest exhibitor will reason some thing like this, although I know that some exhibitors—I'm speaking generally—have honey in their show not the product of their own apiaries and that samples are at times wrongly named

which the judges should detect and rule out, I'll enter the competition straightforwardly and honestly. The exhibitor who acts thus, who has real moral courage, will go home from the exhibition if not with a full pocket, with the consciousness of having done right, with a stronger will and a higher ideal of life.

A P I S.

PROVINCIAL FRUIT, FLOWER AND HONEY SHOW, TORONTO,

Awards in the Honey Department.

Best twenty dozen of comb honey in sections, display to be considered—1. H. Sibbald; 2, R. H. Smith; 3, George Laing; 4, D. Anguish.

Best five dozen of comb honey in sections, display to be considered—1, H. G. Sibbald; 2, D. Anguish; 3, Geo. Laing; 4, R. H. Smith.

Best one dozen of comb honey in sections—1, J. F. Davidson; 2, H. G. Sibbald; 3, J. W. Switzer; 4, D. Anguish.

Best 200 pounds of extracted liquid honey, to be displayed 100 pounds in glass, balance in tins; the glass and tins exhibited to be marketable packages—1, D. Anguish; 2, Geo. Laing; 3, J. L. Byer; 4, John Timbers.

Best display 50 pounds extracted liquid honey in glass—1, R. H. Smith; 2, D. Anguish; 3, Geo. Laing.

Best 10 pounds extracted liquid honey in glass—1, D. Anguish; 2, W. J. Brown; 3, R. H. Smith.

Best 25 pounds extracted granulated honey in glass—1, John Timbers; 2, E. Grainger & Co.; 3, W. J. Brown.

Best display 200 pounds comb and extracted honey, suitable for a grocer's window or counter, space to be occupied 6 square feet by 4 feet high—1, E. Grainger & Co.; 2, R. H. Smith; 3, H. G. Sibbald; 4, Geo. Laing.

Best display 25 pounds extracted buckwheat honey in glass—1, E. Grainger

& Co.; 2, Geo. Laing; 3, W. J. Brown.

Best four dozen buckwheat honey in sections—1, Morley Pettit; 2, J. F. Switzer; 3, George Laing.

Best 10 pounds of beeswax—1, Geo. Laing; 2, J. F. Switzer; 3, W. J. Brown.

Best display of articles in which honey may be used for domestic purposes—1, Geo. Laing; 2, D. Anguish; 3, R. H. Smith.

Best and most practical new invention for bee-keepers' use—1, W. Bayless; 2, R. H. Smith; 3, Jacob Alpaugh.

Best display of bees and queen which may be seen by visitors—1, E. Grainger & Co.

Best method of crating and packing comb honey, showing 12 section crates ready for shipment—1, Gould, Shapley & Muir Co.; 2, R. H. Smith; 3, H. G. Sibbald.

Best packages for long distance shipment of extracted honey showing method of packing and crating same—1, R. H. Smith; 2, R. F. Holtermann; 3, E. Grainger & Co.

The Corrispondenza Apistica publishes some reminiscences of a M. Federici, a noted Italian bee-keeper. M. Federici speaking about the possibility of people becoming prosperous from bee-keeping, and after instancing C. Dadant, who went to America a poor man and became very well-to-do, mentioned a friend of his who was a very small proprietor and who was persuaded to start bee-keeping 15 years ago. Last year this friend said: "When I decided to follow your advice my family was in a very critical condition. We had debt amounting to 8,000 francs, and we did not know what to do. Today I have no debts, and I have purchased two pieces of land and have several thousand francs laid by and I lead an honorable life. I have two sons, who, instead of becoming lawyers or doctors, will follow as beekeepers."—British Bee Journal.

Hints for Beginners

R. F. HOLTERMANN

Selling Granulated Honey.

In The Canadian Bee Journal for November there is an article from my old friend, Mr. Chalmers, of Poole, under the above heading, where the method of selling granulated honey in blocks is endorsed and priority is claimed by Mr. Chalmers. As far as I know I did not claim priority. This in most instances is a questionable assertion; and, after all, what does it matter? Might say, however, that previous to the date mentioned by Mr. Chalmers, when with the Goold, Shapley & Muir Co., Limited, I sold four barrels of buckwheat granulated honey to a small confectionery store, instructing them to strip off the barrels and sell it in blocks. This they did, and disposed of the lot in less than two months. The objection I have to the smaller package is that small barrels would cost more according to their capacity than the larger ones. One object in having the large barrel is to attract attention, which is a very important item in selling goods. The smaller package does not do this to the same extent. Of course, in a very small place the smaller package might be better, but it is surprising how much of this honey can be sold in even a small place, and I am not looking for the smaller sales when I can make the larger. As to granulation, I never knew that a barrel was less inclined to granulate to the centre. I have opened many barrels, I have asked others if they thought there was any difference, but they stated that their experience was the same as mine. I feel sure there is nothing in this. However, if we want to sell the most of well-ripened honey, let us sell and advocate the selling of it in the granulated form. Let us tell people that only well-ripened honey will stand such a method, unripe honey granu-

lates too coarse and watery. If we do this our sale of honey will increase enormously. We are not selling the one-hundredth part of the honey that might be sold in Ontario.

There must of necessity be much in these hints, which are applicable to more than beginners. To all I would say have your honey well ripened before extracting. A honey mixed with what we call inferior grades, if well ripened, is more palatable than that from better sources, such as clover and linden, taken out of the hive before being ripened. Next, after extracting, keep the honey from the atmosphere, otherwise it will draw moisture, then sell it in the granulated form and you will have pleased customers and an increasing market. If I cannot convince a customer that he will be pleased with the honey in the granulated form, I simply tell him that if it is not satisfactory I will take it back. He runs no risk, neither do I, for I have never yet had to take it back, and dealers have told me that sales of honey have doubled and more. No one who has tried this method of selling honey has ever gone back on it. Sell your honey locally as much as you can. A person who has only one or two thousand pounds has no need of shipping it to large centres. Congestion there in two or three houses, as is done now, depresses the market over the entire Dominion. What I mean is this, that bee-keepers at present largely send their honey to half a dozen houses in Toronto and Montreal. These receive more than they can conveniently handle, and they reduce the price, which price becomes the market value, and, Toronto and Montreal being the centres from which emanate the leading Canadian papers, their market reports tend to depress the prices over the entire Dominion. Such a method is foolish in the extreme, yet we do it. Bee-keepers sometimes are a very foolish people, and as long as we are content with present methods of marketing, will not receive the best returns for money and labor. We are in bee-keeping where dairying was 20 years ago, when all grades of butter sold in the country stores as low as 8 and 10c per pound. To-day more butter is produced and at a less cost, and a better price is secured. Let us take a lesson not only from the ant and the bee, but also from the dairy industry.

Brantford, Ont.

