

THE CANADIAN BEE JOURNAL

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MAY-JUNE 1911

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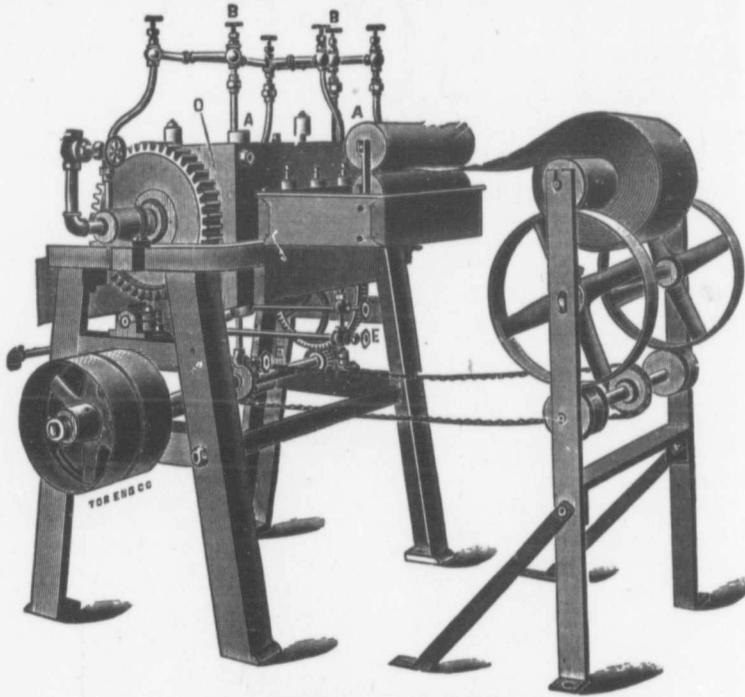


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Brantford, Canada

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JOHN NEWTON

Thamesford :: Ontario

The Canadian Bee Journal

Devoted to the Interests of Bee-Keepers

JAS. J. HURLEY, Editor

Published monthly by
The HURLEY PRINTING CO.,
Brantford, Ont.

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JAS. J. HU

Vol. 19, No. 5-6.

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Miss Trevor's cor Woman's Department certainly an inspiration. us somewhat to do the she suggests. Her surv a good one, and we t will be followed by ot also that we may hear ti quently.

Our readers must not what we write on the q removal of the duty fro write what we believe respect every man's opi to have our own respect play the game of runnin and hunting with the l can we play the game

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The Canadian Bee Journal

PUBLISHED MONTHLY

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

Vol. 19, No. 5-6.

MAY-JUNE, 1911

Whole No. 555-6

The second super added in our district on May 21st. This is going some.

* * *

Some of the boy scouts of our city have taken up the study of bee-keeping among other things. Mr. W. J. Craig is the examiner.

* * *

"He who takes no interest in the general weal, and gives no thought for those who are trodden underfoot, save now and then to bestow alms, is not a good citizen."

* * *

Our Government tells us that after mutual arrangement with the United States Government it is willing to give us our freedom to buy and sell our food products where we like. Are we likely to exercise that freedom so foolishly as to bring about our country's ruin?

* * *

Miss Trevorrow's contribution to the Woman's Department this month, was certainly an inspiration. It has enabled us somewhat to do the very thing which she suggests. Her survey of the field is a good one, and we trust her example will be followed by others. We hope also that we may hear from her more frequently.

* * *

Our readers must not take offense at what we write on the question of the removal of the duty from honey. We write what we believe to be true. We respect every man's opinion as we hope to have our own respected. We cannot play the game of running with the hare and hunting with the hounds. Neither can we play the game of the old man

and his ass. We insist upon the free expression of our opinion upon this matter, and we accord the same privilege to any of our readers in our columns, who may differ from us. This is as fair and as straight as we know how to be.

* * *

We are much gratified with the large number of reports received. Our thanks are due to all who wrote us. It is well to get such reports. They are very instructive by way of comparative bee-keeping. On the whole the losses have not been severe, and all the indications are for a good honey crop. Clover has suffered in some places but only in spots. With a fair quantity of rain from May 15 to June 15, we can be assured of a good crop.

* * *

Mr. Jacob Haberer's translation from the German, appearing this month, will give us something new to think about. Perhaps we do not know it all yet. Discussion and investigation of this kind can do no harm, even though the investigators are not regarded as orthodox scientists. Some valuable discoveries have been made by "laymen" in the past. We will await the outcome of this new theory with much interest.

* * *

Reports concerning clover are varied, ranging all the way from "good" to "poor." Most of the injury has been done on old fields, and has been caused chiefly from ice forming on low places, or from heaving on account of spring frosts. However, but little clover has been plowed up, and the latest reports speak of the crop as making a fair recov-

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than what he gained on the one thing that he sold. Concede "protection" in one case, and you have no logical ground to stand on. All should have it, and all will demand it. If this is accomplished you once more strike a dead level and "protection" ceases to "protect." Protection is a financial advantage to the person enjoying it only so long as he enjoys it to the exclusion of the "other fellow." Hence it is that our manufacturers want protection on what they sell, but such raw materials as they import they want to import free! But often times the raw material of one concern is the finished article of another concern! At this point the "protected" fights, and protection becomes somewhat like whiskey or opium—the more you take the more you want, and the more you satisfy the want the worse you get! To our mind it would be much more logical for bee-keepers to accept free trade in food products and insist on free trade in bee supplies.

* * *

During the past month Mr. Morley Pettit, Provincial Apiarist, has been very busy, and from the number of county meetings announced, will continue to be a very busy man. In February last, through the efforts of Mr. Haberer, a meeting was called of the Huron County bee-keepers, and an association was formed. This association held its May meeting on the 16th, at Clinton, and a splendid attendance is reported. The greater part of the programme fell to Mr. Pettit. The afternoon meeting was devoted to the "Prevention of Natural Swarming," and the evening meeting, "An Illustrated Lecture on Bees and Their Work." Arrangements were also made for apiary demonstrations to be held at three points in the county within the next month. The Oxford County meeting was held at Woodstock on Saturday, May 13th with a good attendance. There was also a grand rally of bee-keepers of the three Counties of Halton,

Peel and York, at the home of Mr. J. D. Evans, Islington, on May 23rd, at which Mr. Pettit was the chief demonstrator. Mr. Pettit showed how to look for foul brood and how to cure it. He also gave an exhibition with the Sibbald wax press, as to how wax can be saved from old combs, which are to be destroyed. On the 18th Mr. Pettit attended a meeting in Hastings County, and on the 19th in Northumberland County. Mr. Pettit reports great activity and interest throughout the province, many attending these meetings who never attended a bee-meeting before. There will also be an outdoor demonstration in Brant County at the home of Mr. Jas. Shaver, Cainsville, on June 3rd. Radial cars can be taken from Brantford or Hamilton. The getting off place will be Station 21. Mr. Shaver's home is right at the station. A big rally is expected. Mr. Pettit will be in attendance at this meeting.

* * *

Through the courtesy of Gleanings we are enabled to present Dr. Philips to our readers in this issue. The cut represents the doctor when he was much younger. Perhaps he has grown better looking since, although we think that would be difficult. However, if such be the case, we would be pleased to present him as he is to-day, if he would be good enough to help us to the possession of a late photograph. We hope he will do this. His attendance at the O. A. C. Apiculture Short Course, was not only complimentary to that institution and to Mr. Pettit, who is in charge, but also contributed much to the success of the course. We much regret our inability to be present, and thus lost the pleasure of meeting the doctor. J. J. H.

* * *

Leo E. Gately, in the Review, gives some excellent reasons for feeding in spring for stimulative purposes. He concludes a splendid and timely article with the following paragraph:

"Without question, judicious and intelligent feeding for the purpose of assisting invalid colonies, is advantageous, especially at a time when bees have access only to old, thick honey. To dilute such honey for the preparation of larval food, they will otherwise be forced to venture out in precarious and ruinous weather in search of a watering place. But whether we wish to feed for stimulation or merely to prevent some of the colonies starving, the fact remains that spring feeding is often unavoidable with all systems, and in the best managed apiaries."

* * *

We most cordially support Miss Robson's remarks upon the subject of advertising. Lecturing upon bees a little while ago, to an audience of townsfolk, we were able to gauge the extent of such people's knowledge, or rather, ignorance of bee matters. Spread information broadcast by means of leaflets, items in local newspapers and also by means of combined and individual exhibits at fairs. Here is work for our county associations—good work too, and a big step in the direction of co-operation.

* * *

We were conversing with an orchardist the other day and were much astonished to find that there still existed fruit growers who failed to recognize the value of the hive-bee to their industry as a pollenizing agent. Our friend seemed to bear a grudge against the bee, alleging that in past seasons much of his fruit, more especially grapes, had been damaged by that insect. We explained away this fiction to the best of our ability, and were better able, in consequence, to persuade him as to the bee's usefulness in his orchard. It would seem that whilst all due attention is being paid to the subject of the damage done by the various classes of injurious insects, the quiet and unobtrusive labors of beneficial insects—"lady birds" and parasiti-

hymenoptera, as well as the bee—are almost completely ignored. It has been stated by an authority that bees add to the resources of a country to a larger extent than the amount received by the bee-keeper from the sale of honey and wax. The importance of the honey-bee to the fruit grower cannot be exaggerated and when we are consulted on the subject, we have not the slightest hesitation in advising the introduction of several hives into an orchard. When blossoming occurs in unfavorable weather, and the flight of insects is much restricted, or following a hard winter when but few of the wild insects survive, the presence of some tens of thousands of such efficient cross-pollenizing agents as the honey bee proves of untold value in an orchard. We must, however, remind any fruit grower intending to keep bees, that like all other stock, they need attention and are subject to various ailments, and that neglect on his part may result in disastrous consequences to his neighbors' bees.

* * *

Armed with the spraying rod and a two hundred pound pressure of lime sulphur we have been waging deadly war with the countless denizens of our orchard. Our operations must have meant annihilation to myriads of tiny creatures, each of whom, in obedience to blind destiny, had been building up in their own manner, and after their own kind, for the benefit of their descendants. We bee-keepers do not all regard the members of the insect creation as mere "bugs." Rather, we are pleased to acknowledge them as our humble relations, and are forced to admire the strenuous lives they lead in marked contrast to our own. We likewise often bewail the untimely fate that overtakes them. But not always, for our hearts become hardened towards them at times. Noticing to-day how the bees were apparently deeply interested in the newly opened apple buds, we more closely examined the trees. Upon one

of the first buds we picked a number of plump, green buds. In addition to a wiggling worm a few days after we had an ample dose of lime sulphur in a pocket glass we plainly saw glistening drops of honey on the downy surface of the buds. We formed the source of the honey. We intend to look to aphids and are disseminating emulsions.

* *

Ontario bee-keepers recognize that their industry is more efficiently organized than present, through local associations in affiliation with the Association at Toronto. It is apt to let other people look to Parliament for assistance of any sort is not possible. Bee-keepers could get more help, they would find it easier helping each other—and at the same time.

* *

Our thanks are due to the Hon. Secretary of the (Ontario) Bee-keepers' Association for his kind remarks regarding the Bee Journal, which he has sought after at the meeting. He fears that some of us wish to come to Canada and see similar to those described in the Journal. "Let 'em All see the Isle of Wight disease," Wakerell, and foul brood to the same extent that in the Old Country.

* *

Mr. Wakerell was also kind enough to send us copies of the rules and regulations, together with the list and schedule of prizes of the annual show of the association is entirely in the

as the bee—are allowed. It has been found that bees add to the country to a larger extent than received by the sale of honey and the care of the honey-bee cannot be exaggerated. We are consulted on the slightest hesitation the introduction of an orchard. When unfavorable weather, insects is much reduced a hard winter wild insects survive, the tens of thousands of pollenizing agents of untold value must, however, be kept in mind, they need to be protected from various ailments on his part may have consequences to his

* * *
spraying rod and a pressure of lime in waging deadly war against the denizens of our orchards must have meant the extermination of tiny creatures, the obedience to blind leading up in their own kind, for the benefit of their own kind, for the benefit of their descendants. We regard the members of the association as mere "bugs," and are pleased to acknowledge the close relations, and are the strenuous lives they lead in contrast to our own. We hail the untimely fate of the members. But not always, some hardened towards the association, noticing to-day how the members are so deeply interested in the apple buds, we more so in the trees. Upon one

of the first buds we picked we noticed a number of plump, green aphids, in addition to a wiggling worm. And this but a few days after we had given the trees an ample dose of lime sulphur. With our pocket glass we plainly discerned the glistening drops of honey-dew upon the downy surface of the young leaves which formed the source of attraction to our bees. We intend to exterminate these aphids and are discussing kerosene emulsions.

* * *

Ontario bee-keepers are beginning to recognize that their industry may be far more efficiently organized than it is at present, through local and county associations in affiliation to the central Association at Toronto. We are all of us too apt to let other people do the work, to look to Parliament Buildings when assistance of any sort is needed. If local bee-keepers could get together a little oftener, they would find many ways of helping each other—and themselves at the same time.

* * *

Our thanks are due to Mr. Wakerell, the Hon. Secretary of the Croydon (England) Bee-keepers' Association, for his kind remarks regarding the Canadian Bee Journal, which he states is much sought after at the meetings of his association. He fears that some of the members wish to come to Canada and start apiaries similar to those described in the Journal. "Let 'em ALL come" as our friends across the water say. We have no Isle of Wight disease here, friend Wakerell, and foul brood does not exist to the same extent that it does in the Old Country.

* * *

Mr. Wakerell was also good enough to send us copies of the rules of his association, together with the annual report and schedule of prizes offered at the annual show of the association. The association is entirely independent of gov-

ernment support or patronize of any sort; yet it sends out an expert bee-keeper to visit members desiring advice or assistance, issues a monthly journal, holds monthly meetings and an annual show, lends a microscope to members—all this upon a membership of some sixty, and a yearly subscription of \$1.20! Visits to prominent apiaries are organized in the summer season, and at other times lantern lectures are delivered by such experts as W. Herrod, J. Silver and G. W. Bullamore—names well known to every English bee-keeper. The schedule gives a list of no less than twenty-four classes, in which valuable prizes, including a silver challenge cup are offered. The balance sheet proves the association to be in a very healthy condition. Our congratulations to you, friend Wakerell.

* * *

Improvement in bees! We doubt whether any other subject is engaging the attention of bee-keepers to a greater extent than this. Some desire bees that won't swarm, others want Methusalehs, whilst still others are in search of Goliaths. Can a race of Goliaths be produced by raising them in big cradels? Dr. Miller quotes M. L'Abbé Pincot in *L'Apiculteur*, who claims to have produced abnormal bees simply by lodging them upon combs made from foundations with fewer cells to the square inch. If his bees are really larger, what has he gained? Nearly all practical experience goes to prove that living creatures produced under abnormal conditions and undergoing abnormal growth are not so efficient in their natural activities as their less fortunate fellows. That the reverend Abbé has produced a strain of large bees simply by changing their environment slightly, we can scarcely credit. Let him produce a strain that will build larger cells naturally, then he will have achieved something of note. But he will not do this, we imagine, in the way he has described.

Wesley Foster, says in Gleanings, that prospective candidates for membership in a co-operative association should ask themselves certain questions, among which are the following: "Do I believe that there are business brains and honesty among bee-keepers to make a national co-operative association a success? Do I know of a man with the knowledge, ability and judgment to manage such a business, and safely get the craft afloat? Could seven directors (of sufficiently good judgment) be found who would

serve without pay? Am I willing to grade my honey according to the rules adopted by the association, and trust the manager's judgment when he tells me that it will have to be regraded in the association's warehouse at a cost to me of 5 cents per case? Do I have the fullest confidence in the honesty of purpose and management of the association? and am I an enthusiastic believer in the idea of co-operation?" He adds, "Do we really mean anything or are we just talking?"

—W. W.

Indexed

WOMAN'S DEPARTMENT

CONDUCTED BY

Miss Ethel Robson, Ilderton, Ont.

The Woman's Department bows its thanks to Mr. Chalmers for his good wishes expressed in the April Canadian Bee Journal. It also acknowledges with thanks the good wishes of Mr. Ferguson Whiteside. Mr. Whiteside, basing his judgment on his own experience, is not sanguine about interesting women in bee-keeping; however, the department is more hopeful. A vast number have to make their own living, and bee-keeping certainly offers a happy alternative to shop or office. Indeed, some enquiries are already coming in. And it must be remembered that bee-keeping for women is only one phase of a great movement for the development of the opportunities for happiness and economic independence in the country. If the Woman's Department in the Canadian Bee Journal can give the slightest impetus to this movement it will work well worth doing.

The bee-keeper who depends on his bees for a living dreads the small bee-keeper for two reasons: the menace of foul brood; from bees which receive poor attention; and the demoralisation of

the home market by the hurrying of the small and often inferior lots of honey onto the market at a low price. From the first of these there will be little to dread from the women who may take up bee-keeping. Women are naturally more attentive to details than men and their well known instinct for house-cleaning ought to stand them in good stead here; besides if a woman expects to make her livelihood by bee-keeping, she is likely to have fewer irons in the fire than many men who attempt it. The second might prove a source of danger. Women would naturally produce in smaller quantities than men, and hence would be able to dispose of it less advantageously. This is scarcely likely though to prove a menace. Most women know the value of a dollar as well as a man, and with our increasing opportunities for communication and transportation, they will look for the very best prices they can get. And just as soon as there is any real danger of the market being glutted, the men will be ready to unite on some co-operative scheme to bring together producer and

May-June, 1911

consumer to the advantage. It will be a long time before the production of honey is so general that a certain amount cannot take care of itself used in its distribution.

This spring was the contracted the brood colony, and the advantage obvious. I don't know of my hive is, but it is certainly described by Miss one certainly lends itself a snug, compact ing a few of the car when a few of the car I have often wished th of the standard Langstr ever, I believe that in least, the deep frame of the hive is an advantage any division board ing contracting might not c in the Woman's Department ever, there have been and some of the colonies in the spring have now as much brood as the are in need of extra care to continue laying.

Convention Day at the apiculture at O. A. C first opportunity of visiting cultural college, and also substitute. A number of them were taking part of the how much prospect of I had no opportunity to were also several women taking the whole course we hope to hear from ment. A number of the college are seriously thinking up bee-keeping. Mr. P. is an efficient apostle of it is to be congratulated on his first short course.

The practical apiary we first opportunity of seeing

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consumer to the advantage of both. It will be a long time before the production of honey is so great that the market cannot take care of it, provided that a certain amount of intelligence is used in its distribution.

This spring was the first time that I contracted the brood chamber to suit the colony, and the advantage is very obvious. I don't know what the name of my hive is, but it is the same as the one described by Miss Thirlwall, and it certainly lends itself admirably to making a snug, compact brood chamber when a few of the cards are taken out. I have often wished that my hives were of the standard Langstroth variety. However, I believe that in this respect at least, the deep frame running crosswise of the hive is an advantage. Not having any division boards my methods of contracting might not do for publication in the Woman's Department. However, there have been no evil results, and some of the colonies marked "weak" in the spring have now, May 9, almost as much brood as the strong ones, and are in need of extra cards for the queen to continue laying.

Convention Day at the short course in apiculture at O. A. C. gave me my first opportunity of visiting our agricultural college, and also McDonald Institute. A number of the institute girls were taking part of the course, with how much prospect of practical results I had no opportunity to judge. There were also several women from outside taking the whole course; some of them we hope to hear from in this department. A number of the students at the college are seriously thinking of taking up bee-keeping. Mr. Pettit is proving an efficient apostle of apiculture, and is to be congratulated on the success of his first short course.

The practical apiary work gave me my first opportunity of seeing American

foul brood. I have often been told that my education as a bee-keeper was incomplete until I had foul brood to fight among my bees. I have had a wholesome dread of it, but after the work at Guelph feel much better equipped to stamp it out if the occasion should arise. The slides, shown by Dr Phillips, were especially helpful. They brought the whole operation for treatment to a focus, and enabled one to carry away a clear picture of the various processes.

Not the least interesting feature of the course was a talk by Mr. LeDrew, of the college staff, on "Co-operative Methods and How Bee-keepers Can Use Them." Mr. LeDrew has made a study of co-operative methods in Denmark, and is an enthusiastic advocate. Co-operative methods have greatly increased the profits of agriculture in that country besides bringing the products of the whole country to a very high state of perfection. One of our serious difficulties seems to be the prevailing idea that co-operation means getting some one else to do the work for you. In Denmark the underlying principle seems to be the imperative demand upon every member of the society to do his best, coupled with a systematic method of exchange, which eliminates all unnecessary expense between producer and consumer, and enables the small producer to get the same advantage with regard to markets and rates as the large producer. It is just possible that bee-keepers, in discussing co-operative association for selling honey, have begun at the wrong problem first.

The weather was the only feature about the Short Course that was disappointing. The first days were cold and snowy, making it impossible to carry out the programme as regards the apiary work, Thursday morning, convention day, however, dawned bright and clear, though still cold. When I arrived at the college I found the class assembled in the apiary,

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and busily engaged in unpacking the bees and transferring them into brand-new hives. It was rather cold for disturbing them so much and they settled thickly on the clothing of every one near. However, they soon settled down quietly in their new quarters. Some of the older bee-keepers looked askance at the process, thinking it rather chilly weather for such wholesale disturbance; not many of them would have been willing to take the risk with their own bees. The main purpose of the College bees is not to provide a livelihood, and it was necessary to have the practical part of the work shown. The apiary as I approached it was a pretty sight. The hives are situated on the side of a gentle hill, and surrounded by a number of evergreen trees; a bunch of college girls done up in bee veils lent life and color to the scene. Round about were grouped visiting brethren, and Mr. Pettit in the midst explaining details and extending the glad hand to all comers.

The college bees are wintered in collapsable cases containing four hives each and packed with planer shavings. The bees came out in nice condition, a goodly amount of brood showing in the combs and no mould on the cards. The shavings certainly make a nice clean packing. After the bees were placed in the new hives, a super filled with the shavings was placed above them to conserve the heat. The packing cases used are very neat in appearance, and coming apart as they do are easily removed from the hives, and can be placed away in small space. When the same packing is used from year to year, this last point would not be so much of an advantage, as many bee-keepers keep their packing in the cases all summer. But even so, the collapsable cases have many advantages to recommend to those who find it necessary to provide new cases.

There was one point brought out by Dr. Phillips with regard to foul brood,

which it will be well for all bee-keepers to know and guard against. In their experimental work at Washington they have found an almost universal tendency among bees to desert the hive when foul brood becomes very bad; indeed, in some of their experiments they found it necessary to keep a drone trap constantly in front of the hive in order to keep the queen in. This only emphasizes the necessity for greater vigilance. The runaway swarm is a menace to the whole neighborhood and makes it almost impossible to locate the origin of the disease. The actual samples of foul brood we saw at Guelph were due entirely to the carelessness of the owners of infected bees. In this case the bees had died, and the hives being left on the stands, were robbed out by the neighboring bees. In the matter of foul brood certainly no man can live unto himself alone.

One Decade With the Ontario Bee-Keepers' Association

M. B. Trevor

Members of the Ontario Bee-keepers' Association who are regular attendants at the annual conventions and who keep in touch with the general workings of the Association, cannot fail to have noticed the advancement this society has made in almost every line in the last decade.

Improved Accommodation.

Ten years ago the place of meeting for their annual convention scarcely afforded breathing space for the few members who were in attendance, and little if any room for demonstrations.

Now, through kindness and influence of one its prominent local members, the York County Council Chambers is yearly at their disposal, affording sufficient accommodation for a largely increased attendance, as well as ample space for exhibiting bee-keeping appliances and up-to-date methods of handling bees.

Convention Pro

The programmes given at the conventions of the O. I. are a source of information to the bee-keepers, as well as to the reports of these meetings in the Bee Journal, and annual Association.

It is probable that the programme is concentrated upon one subject, the exclusion of nearly every other source of information. The best productive of the best have been two instances in the past ten years. One subject of foul brood was treated in papers, addresses, in demonstrations, exhibitions of the genuine, its foulness of aspect, and brought the subject before the convention with such force that the underlying question ever since has been in 1909 when, queens a queen old and young, young queens manufactured or robbed, swarming impulse, den queen rearing and man queen cells from the heat producing of queens, and Italianizing whole yards in exterminating disease, of thought that cannot fail to result throughout the world. At the spring convention and Peel Bee-Keepers, "Queen Programme" of the convention of 1909, nearly every keeper present declared in favor of queening with Italian queens, describing for half a dozen others re-queening the world and in thinking, like in art, is apt to bring forth a program of its kind. The Program have the power to create a program almost any line, by a convention programme.

Change of Prices of

Early in the last decade started under the name of Exchange.

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Convention Programmes

The programmes given at the annual conventions of the O. B. A. are a great source of information to those in attendance, as well as to those who read the reports of these meetings in the Canadian Bee Journal, and annual reports of the Association.

It is probable that the programme that is concentrated upon one subject, to the exclusion of nearly everything else, is productive of the best results. There have been two instances of this kind in the past ten years. Once when the subject of foul brood was the chief topic in papers, addresses, in discussions, and exhibitions of the genuine article in all its foulness of aspect and odor, and brought the subject before the convention with such force that it has been an undying question ever since, and again in 1909 when, queens and re-queening, queens old and young, yellow and black queens manufactured or reared under the swarming impulse, demonstrations of queen rearing and manufacturing of queen cells from the heated wax, the introducing of queens, and the benefit of Italianizing whole yards and localities in exterminating disease, started a train of thought that cannot fail to have good results throughout the whole Province. At the spring convention of the Halton and Peel Bee-Keepers, following the "Queen Programme" of the O.B.K.A. convention of 1909, nearly every bee-keeper present declared in favor of re-queening with Italian queens, some subscribing for half a dozen to two dozen, others re-queening the whole yard. In and in thinking, like in and in breeding, is apt to bring forth a perfect product of its kind. The Programme Committee have the power to create a revolution in almost any line, by a concentrated programme.

Change of Prices of Honey

Early in the last decade a project was started under the name of the Honey Exchange.

The committee in charge of it was expected to obtain, by reports from the members of the O.B.K.A., an estimate of the whole crop of the Province, and to send out to each member a list of prices that in their opinion should prevail, for light and dark, extracted and comb honey, sold in wholesale and retail quantities. There was also in this connection, although not incorporated in it, a scheme of co-operative buying and selling of honey. Some of the Honey Exchange Committee were hot-foot after the dollars that were annually being clipped off the bee-keepers' profits by the middlemen, before the goods reached the consumer, but the loss of a few good customers by those most interested and a hint that a police court investigation might be called in to break the trust or combine, as it was supposed to be, together with the apathy of many bee-keepers towards the scheme, served to daunt the ardor of its promoters, and led them to rely solely upon the benefits derived from the honey crop reports and list of prices based thereon.

We owe an appreciable rise in honey prices to these reports and the committee's mode of handling them in judging honey values. It is a remarkable fact that before this committee was appointed the best white extracted honey was selling as low as 5 1-2c. per lb., and since its inauguration No. 1 white extracted honey seldom goes below 10c. or 10 1-2c. per lb. wholesale.

At our last convention the co-operative scheme seemed to have broken out again and we have Journal reports of red hot enthusiasm on the part of its supporters. We cannot prophesy of its ultimate success, but will venture to say that its success will depend upon the promoters being able to pay spot cash and higher prices than has ever been paid yet.

The Ontario bee-keeper has never learned to play a waiting game, even for extraordinary prices. The past gave him

small profits and quick returns; the present gives him larger profits and—quick returns, and the scheme of the future that promises still larger profits must couple with them, just as emphatically, quick returns, if the Ontario Bee-keeper is to play the game. We do not think that honey in cold storage is a dream of his.

While speaking of honey prices, we might mention reciprocity, as it is within the range of the subject, although it does not belong to the decade of which we are writing, still it is possibly one of the "coming events" that "cast their shadows before."

To Editor Hurley it may be, and judging by his jocular manner of treating the subject, probably is, a cloud with a silver lining, but to the recently appointed head of the Woman's Department of the Canadian Bee Journal, it seems to present a very serious aspect, as viewed from her standpoint, and to help to relieve her stress of mind, we offer a piece of information that the past decade has given to us. A few years ago a prominent bee-keeper of Ontario arranged to fill an order for No. 1 clover honey to go to a town in the vicinity of Pittsburg, Pa. The order was filled at the time at current prices, and buyer and seller were pleased with the deal and, we believe, continue to do business with each other to-day. Now what we would note in connection with this live question of to-day is, that the buyer was willing to pay 20 cents per gallon duty on Canadian honey, of the quality he was getting, because it was impossible for him to procure honey of such good quality in his own locality. Does it not follow then, that out of 80 or 90 millions, to whom reciprocity may give us access, there may be a sufficient number within easy range of our markets with similar tastes and similar disability to gratify them, whose needs would warrant our "Woman Editor" in making a call to the other women of Ontario to "come

along and gather the nectar that is yearly going to waste in our Canadian fields," and let us establish a market of select products and pander to the tastes of the Canadian and American epicure.

The Canadian Bee Journal

Ten years ago the Canadian Bee Journal was keeping slow step to the music the society piped. To-day the music is much faster, the song more triumphant and the Journal quite equal to the society's fastest pace. The editor has been justly complimented upon the improvement of the Journal by fellow journalists of other countries.

We might say a word here on the duty of supporting this organ of our Association.

Some time ago a professor from the U. S. A. was given, or had chosen a subject upon which to address the O. B. A. convention. He was present at several of the sessions and heard many of the papers and the discussions upon them before the time allotted to him arrived. When he arose to address the meeting, he said: "I had intended addressing you on a subject upon which I have found, by listening to your discussions, that you are better informed than I, and will take the liberty of changing my subject to one with which I am more familiar." This was a well deserved compliment to the numerous members of the Association who took part in the meeting, on their knowledge of bee-keeping and their mode of conveying that knowledge to their hearers. It is not the speaker whose rhetoric is the most finished or whose vernacular is the least faulty, but the one who knows his subject most thoroughly, who is the most convincing, and has the greatest influence as a speaker or a writer, and we believe the O.B.K.A. has the material if it were properly developed to make its national Bee Journal the foremost of its kind on the continent.

The one thing open to criticism in the Canadian Bee Journal is that it

almost invariably appear in the month of issue as to matter of wonder if the public had stopped. We think Ed would be justified in applying to the association for a grant to enable him to print a book. He could then issue it at the beginning instead of the end and still maintain the winning pace.

Exhibition of

The honey exhibits, of course, is probably the one we cannot claim that we have had considerable advancement in the last few years. Honey was exhibited in a kind of package, both in extracted forms, wax in the same mold shaped in the same mold, living bees awakened to the sight-seers' minds as they do to-day, and to the novelties in bee-keeping interest to none but bee-keepers only forms of exhibits that our association puts on at the Canadian National and Provincial Exhibition, the Honey Show, or at a county fairs in the Province.

We have an Exhibition of honey we believe are as well qualified in position as any that could be gotten from the ranks of the bee-keepers; they have either not serious value to the Association or the advertisement of an exhibition of honey have not yet dreamed of an exhibition of honey in beauty of display, or in magnitude of design, or in magnitude of any other collection of products, or have taken to themselves the carpings of those who advocate of "quality" "glass display" and in consequence have not been content to draw a "line" on this important branch of

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almost invariably appears so late in the month of issue as to make its subscribers wonder if the publication has been stopped. We think Editor Hurley would be justified in applying to the members of the association for sufficient copy to enable him to print an extra number. He could then issue the Journal in the beginning instead of the end of the month and still maintain the Journal's present winning pace.

Exhibition of Honey

The honey exhibits, of yearly occurrence, is probably the only line in which we cannot claim that there has been considerable advancement in the past ten years. Honey was exhibited in the same kind of package, both in comb and in extracted forms, wax was to be seen shaped in the same moulds, a colony of living bees awakened the same interest in the sight-seers minds ten years ago as they do to-day, and these with a few novelties in bee-keeping appliances, of interest to none but bee-keepers, are the only forms of exhibition advertising that our association puts up annually at the Canadian National Exhibition, the Provincial Exhibition, the Fruit, Flower and Honey Show, or at any of the minor county fairs in the Province.

We have an Exhibition Committee that we believe are as well qualified for the position as any that could be chosen from the ranks of the association, but they have either not seriously calculated the value to the Association of the Exhibition as an advertising medium, or have not yet dreamed of the possibility of an exhibition of honey and wax to eclipse in beauty of display, in uniqueness of design, or in magnitude of structure any other collection of nature's products, or have taken to heart too seriously the carpings of those who pose as advocates of "quality" and deride a "glass display" and in consequence have been content to draw a "short bow" in this important branch of our society's

business. We would wish for them a keener appreciation of the advertising benefits of the public exhibition, a broader vision of the possibilities of the commodities they are annually showing to make an exhibit of unparalleled attractiveness and that their task should be made easy by the support of their fellow bee-keepers in supplying material especially intended for display purposes.

With wax that could be moulded in to all manner of forms for building material, sections of comb honey for ornamentation and extracted honey in granulated and liquid form in suitable packages for heavy architecture, a whole city could be built of the products of the little busy bee, that no bank of orchids or house of Baldwin or Northern Spy apples could outvie.

Foul Brood Inspection

Ten years ago Ontario had but one authorized foul brood inspector, than whom there could be no one better qualified to deal with the disease, but as the season for inspection of apiaries and cure of foul brood is so short, it was deemed advisable to add to the number of inspectors.

Now there are 16 foul brood inspectors in Ontario, each with a district allotted to him in his own immediate locality.

With increased facilities for inspection has come an increasing desire for it, and the question with the bee-keeper who fears he may have the disease in his yard is not as it once was, "How shall I elude the inspection?" but "How can I get an inspector here soon enough?" In short, inspection is courted where once it was dreaded. Invitations to visit suspected apiaries are a common occurrence in the season, and the way is made easy for the inspector to do his duty.

There is still one thing to fear in regard to apiarian inspection, which is that the thoroughly well qualified inspector may allow the fact that there is

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comparatively nothing in it for him by way of remuneration for time spent in travel and inspection, or because the call to his own yard or yards is too imperative, or possibly because he has grown accustomed to the situation and does not fear it as he once did, to influence him to resign from his position as inspector.

While an inspector of such repute as the inspector for York County can tell of a district in that county where everything has about rotted down with foul brood, and no apiaries worthy of the name are left, and out of 568 colonies examined in his whole district of four counties, 103 (one colony in every six) were diseased, when this same inspector gives it as his opinion that "unless something can be done to stop the ravages of European foul brood, it will not be long till the bee-keeping industry of Ontario will be wiped out," is it any wonder that we view with alarm the resignation, in one season, of two such inspectors as the originator of the generally acknowledged best method of curing the disease, and the still more advanced advocate of the "sure death cure." In the past decade this offensive commodity has been pretty thoroughly stirred up, but this is no time to let the interest in it die down, when the annual loss to bee-keepers through this scourge is variously estimated, by the inspectors' reports, at from \$15,000 to \$60,000 per district. A forecast of the next decade, judging by the foul brood inspectors' reports, points to the establishing of quarantine stations, the inspection and deportation or destruction of infected colonies, coming into this country, or being removed from district to district in Ontario; the registration of thoroughbred or perfectly healthy colonies, and the enforcement of a license or tax upon all who wish to engage in apiculture.

Change of Officers

Ten years ago, and for many years

previous to that date, a member of the O.B.K.A. was giving eminent satisfaction as secretary, and another equally good service as treasurer of the society, but they, with some of their fellow bee-keepers were led to think that greater benefits would accrue to the association if they could have a secretary who would be in close touch with the Government Department. Mr. P. W. Hodgetts was accordingly appointed secretary, and still more recently treasurer of the association. The original appropriation for the Bee-keepers' Association and inspection work was \$1,100, which included \$500 for the association and \$600 for the inspection of apiaries. The amount of money now voted for the association is \$500; for foul brood inspection \$3,000; for Apicultural Department at Guelph \$2,100. In addition to this the Department pays for the service of the secretary, and most of the expenses of his office. A new office, that of Provincial Apiarist, to which Mr. Morley Pettit has been appointed, was created in the latter years of the past decade. The principal advancement since this appointment is in the interest which has been shown in bee-keeping generally, and in the treatment of disease in particular. The Provincial Apiarist has been getting together a complete list of the bee-keepers of the Province, and the extent of the two foul brood diseases, and has taken complete charge of the fight against these diseases. There has been a great awakening among bee-keepers in the different parts of the province and such interest will undoubtedly result in a desire for information along other lines connected with the industry. This has shown itself in the co-operative work which Mr. Pettit undertook last year in the control of swarming and also in the attendance at his first short course, which was held last week.

With foul brood inspection so ably supported out of the public treasury and the large amount expended on the

Apicultural Department must acknowledge that issue of the Woman's Department of the Canadian true estimate of the c

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As you have asked write their experience I will try and give ar we manage ours.

In 1902, mother and about 75 colonies on o they were to be sold as we had made our o many years, we would tr hives. Mother had h every way for over ten the knowledge, and I v would overcome my fea help her. All my pre amounted to was know when they swarmed; sm times, and if one stun, smoker and run.

We kept five colonies supply of surplus hives. honey house, extractor, to work with, and as M an ideal bee yard.

We use an 18 x 12 x 1 frames a foot square. large, the bees seem to feeding. We use a chaff inch space filled with fla have the bees in these taking the chaff off ever side hive during the v This makes the work n putting away for winter.

By giving the bees pl room; watching queen c ping queens' wings we l little troubled with swar a solar wax extractor, so low wax. We also mal gar.

The first year, 1902, v from the five colonies,

Apicultural Department at Guelph, we must acknowledge that the last sentence of the Woman's Department in April's issue of the Canadian Bee Journal is a true estimate of the case.

May Thirlwall.

As you have asked for women to write their experience in bee-keeping, I will try and give an account of how we manage ours.

In 1902, mother and I were left with about 75 colonies on our hands. When they were to be sold we thought that as we had made our own honey for so many years, we would try and keep a few hives. Mother had helped father in every way for over ten years, so she had the knowledge, and I was determined I would overcome my fear of them and help her. All my previous experience amounted to was knowing and telling when they swarmed; smoking them sometimes, and if one stung me drop the smoker and run.

We kept five colonies and an ample supply of surplus hives. We had a good honey house, extractor, and every thing to work with, and as Mr. Alpaugh said: an ideal bee yard.

We use an 18 x 12 x 12 inch hive and frames a foot square. This hive being large, the bees seem to need very little feeding. We use a chaff hive with a six inch space filled with flax chaff, and we have the bees in these the year round, taking the chaff off even with the inside hive during the working season. This makes the work much less when putting away for winter.

By giving the bees plenty of surplus room; watching queen cells, and clipping queens' wings we have been very little troubled with swarming. We use a solar wax extractor, so have little yellow wax. We also make honey vinegar.

The first year, 1902, we cleared \$45 from the five colonies, and wintered

seven. Only one colony died during seven years, and our profits averaged between \$40 and \$70.

We traded two or three hives for more supplies, and doubled some up in the fall. In the autumn, 1903, we had 14 strong colonies. Two of these were dead, however, in the spring of 1909, but we made \$100 clear and put 13 hives away in October. Spring, 1910, found all alive and strong. We sold two colonies and, with the price of honey being higher, we realized \$125 that season. Ten hives were stored, a couple of weak ones having to be doubled up. This spring, March, 1911, my mother being in poor health, I looked through them myself. They all had brood and were in good shape. Three (being scarce of stores) I fed with granulated honey.

We have no trouble selling our honey as we always try to produce an A1 quality. Customers come to the house for it, and many orders reach us after it is all sold. We extract the dandelion before the clover begins, and do not mix the last in the fall with the basswood, but sell it at a much lower price.

Keeping bees is not all pleasure or profit. It means a lot of hard work, but I do not see why it is not a suitable occupation for women. I think two can manage better than one, as the hives are often heavy to lift. We have had all the honey we wanted for ourselves, and made a little pin money. I do not like to get stung. Oh, no! but I have overcome my fear of them and would not like to be without our bees for anything.

M. Davis Field.

I have no new secrets to divulge in the methods of bee-keeping, no new treatments for foul brood to hold forth, and no new theories on the "why-fores" of bee life; still, I am writing, and for two reasons. The first is because Miss Robson, whom I met while taking the Short

Course in Apiculture at Guelph, assured me that she would expect a letter; and the second is because, while I am not a suffragette sympathizer even, I think one woman is bound to stand by another.

Miss Robson has been trying and succeeding in making an interesting page for women, so it seems to me we can all let our house-cleaning or preserving "hide-a-wee," while we write a few words to show that we are interested and ready to help the woman's department.

I have just returned from Guelph where I took the Apiculture Short Course at the Ontario Agricultural College. I went there interested, I came home enthusiastic. The course was short but comprehensive. The lectures, like sandwiches, with the "in-between-parts" always foul brood,—and yet when we visited an apiary, and saw the real thing, I admitted, I would not have recognized it from the descriptions, although they were excellent. In my imagination I had exaggerated every thing to such an extent, that I would have needed a magnifying glass before it could have reached my expectations. So foul brood disappointed me, but cannot fool me

IMPROVING THE HONEY BEE

A few years ago Dr. Phillips remarked that "queen breeding was usually not carried on with a knowledge of the common principles of breeding as practised on other animals and plants." Whilst this statement is still generally true, recent articles appearing in the various bee papers go to show that bee-keepers are now beginning to recognize the desirability of applying the principles upon which is built up the science of breeding. We cannot allow to pass without protest an article which appeared recently in the American Bee Journal, penned by Dr. Bonney, who made therein

now, even if it steals into our own apiary.

Of course everybody knows that the only treatment for this disease, is to shake into new hives, but all are not agreed as to which is preferable, one shake or two. Dr. Phillips in his lectures advocated, one shake only, and into a hive with one-quarter inch starters. He said in this way the bees having no place for storing used up any honey they had with them. His objection to another shake into a new hive with full sheets of comb was that the shock of this treatment was a severer strain on the bees than the other wise production of the necessary wax. To the objection that the bees would build drone comb, the answer was, that it could be used for honey instead of brood.

I am afraid Miss Robson will think it is harder to get me to stop writing than to get me started. However, I cannot close without advising any who can, if there be a short apiculture course at Guelph in nineteen hundred and twelve, to attend. My only regret is that since I was there this year I can not hope to go again next.

the remarkable statement that "The bee is an animal in which development ceased ages and ages ago, and is therefore incapable of improvement." In the light of modern science, such and other similar mischievous statement are meaningless, and we trust that bee-keepers may not be persuaded from endeavoring to make use of that most bountiful of nature's gifts—the power to improve the races of living things.

Systems of breeding have as their object, either the improvement of the general stock of the owner; the improvement of the breed or variety as a whole; or the origination of new varieties.

In the first case, the bee-keeper merely

purchases improved breeders, thus only temporarily general level of the bees in his yard. and least costly method system, for its success requires a knowledge mental principles.

The day is past breeder was content queens, and we now prising bee-keepers queens as "line-bred." of the breed or variety affected by selecting for breeding purpose inferior strains. The is greatly complicated breeding by the difficult controlling the mating times considered almost parthenogenetic nature the drone also introduced of trouble. Such difficulties into the problems of other kinds of "improvement of the quite so simple a matter would have us believe off" the heads of inferior help us much, nor will our best permanently Breeding must be carried lines pointed out by No; the task is no simple In the system of breeding just been referring to, of the race consists in the best individuals or characters existing in the limit beyond which it not go is fixed. But exist, each possessing lences and defects, it pens that, by judicious variety may be produced desirable qualities, and defects of the parents. twelve years, since the

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purchases improved stock from queen-
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 the bees in his yard. This is the simplest
 and least costly method. But even this
 system, for its successful application, re-
 quires a knowledge of certain funda-
 mental principles.

The day is past when the queen-
 breeder was content merely to rear
 queens, and we now find certain enter-
 prising bee-keepers advertising their
 queens as "line-bred." The improvement
 of the breed or variety as a whole is ef-
 fected by selecting the best individuals
 for breeding purposes, and eliminating
 inferior strains. The work of selection
 is greatly complicated in the case of bee-
 breeding by the difficulty met with in
 controlling the matings—a task some-
 times considered almost insuperable. The
 parthenogenetic nature of the origin of
 the drone also introduces a further cause
 of trouble. Such difficulties do not enter
 into the problems confronting the breed-
 ers of other kinds of stock, so that the
 "improvement of the honey-bee" is not
 quite so simple a matter as some writers
 would have us believe. The "pinching
 off" the heads of inferior queens will not
 help us much, nor will requeening from
 our best permanently improve the race.
 Breeding must be carried on along the
 lines pointed out by modern scientists.
 No; the task is no simple one.

In the system of breeding we have
 just been referring to, the improvement
 of the race consists in the segregation of
 the best individuals or combinations of
 characters existing in the race; and the
 limit beyond which improvement can-
 not go is fixed. But where varieties
 exist, each possessing distinctive excel-
 lences and defects, it frequently hap-
 pens that, by judicious crossing, a new
 variety may be produced, retaining the
 desirable qualities, and rejecting the de-
 fects of the parents. During the past
 twelve years, since the discovery, or

rather re-discovery, of the Mendelian
 principles, the knowledge and applica-
 tion of these principles have enabled
 breeders generally to work their will with
 the plastic living organism, whether
 plant or animal, in the most marvellous
 fashion. It still remains, however, for
 the bee-keeper to take his place in the
 ranks of thremmatologists.

Before proceeding further, we will
 venture to state more clearly the prob-
 lem that the bee-keeper has to
 face. Supposing he possesses a colony in
 which certain desirable characters ap-
 pear in a very marked degree, and he
 wishes to perpetuate these good qualities.
 Now our experience teaches us that the
 progeny of any creature vary to a very
 considerable extent. There are no two
 individuals alike among them. Careful
 experimentists have shown us how the
 offspring of individuals of the best types
 show the same wide range of variability
 that exists in the whole strain or breed
 to which they belong. But by a contin-
 uous process of selection, the average of
 the type may gradually be raised. In the
 absence of selection, the type may remain
 practically stationary for long periods,
 deviations in one direction being almost
 exactly counterbalanced by deviations in
 the opposite. When an attempt is made
 to improve the type, the many genera-
 tions of ancestors are all contributing to
 what we may call the "make-up" of the
 new generation, and they exercise in
 consequence a pull away from the di-
 rection of improvement. The tendency,
 sometimes called the "drag of the race,"
 is always towards mediocrity; and it is
 the primary object of breeders to over-
 come this "drag" by selecting to per-
 form the offices of parents of the new
 generations, individuals of improved
 types. The only sure basis of uniform
 success lies in a uniformly excellent an-
 cestry for at least five or six generations.
 Thus we see that the progeny of our
 selected stock must for some generations
 undergo a rigorous culling process, only

those queens being retained that maintain, or improve upon, the standard of excellence shown by the parent colonies. The offspring will still exhibit the same degree of variability and want of uniformity, but the "drag" has been reduced to a minimum, and the bee-keeper in consequence will be in a position to make the most of the exceptional parent. All this time we are assuming that means have been found to overcome the difficulty that arises in controlling the matings of our queens. We will refer to this matter in a subsequent article. Here we are concerned with the fundamental principles that are necessary for us to understand in our efforts to improve our race of bees.

W. W.

(To be continued).

Indexed

PARTHENOGENESIS

The Theories of Dzierzon and Dickel Compared

(From an article by Fr. Dickel, Darmstadt, Germany, translated by Jacob Haberer).

[Parthenogenesis, or reproduction without fecundation, is a phenomenon as all bee-keepers are aware, which occurs in many orders of plants and animals. Dr. Dzierzon was the first who made known its existence in the case of bees, publishing his discovery in 1842. In 1849 he wrote the following in the "Bienenzeitung" which sums up his views upon the reproduction of bees:—

"Therefore, and this must be well borne in mind, in the copulation of the queen, the ovary is not impregnated, but this vesicle, or seminal receptacle, is penetrated or filled by the male semen. By this, much, nay all, of what was enigmatical is solved, especially how a queen can lay fertile eggs in the early spring, when there are no males in the hive. The supply of semen received

during copulation is sufficient for her whole life. The copulation takes place once for all. The queen then never flies out again, except when the whole colony removes. When she has begun to lay, we may, without scruple, cut off her wings; but she will remain fertile until her death. But in her youth, every queen must have flown out at least once, because the fertilisation only takes place in the air; therefore no queen, which has been lame in the wings from birth, can ever be perfectly fertile; I say, perfectly fertile, or capable of producing both sexes. For to lay drone eggs, according to my experience, requires no fecundation at all. This is exactly the new and peculiar point of my theory, which I at first only ventured to put forward as a hypothesis, but which has since been completely confirmed."

Later, in 1855 he says: "All eggs which come to maturity in the two ovaries of a queen are only of one and the same kind which, when they are laid without coming in contact with the male semen, become developed into male bees, but, on the contrary, when they are fertilised by male semen, produce female bees."

Although Dzierzon's theory has been confirmed by Siebold, Leuckart, and Berlepsch, not a few scientists have come forward to combat and deny it. Amongst the latter are Dr. Kuckuck and M. Dickel, both of whom state that Dzierzon is wrong, and also differ between themselves. Dr. Kuckuck contends that all eggs in a hive are fertilised. He insists that unfertilised eggs are incapable of development, and would quickly die. These and other conclusions of Kuckuck afford cause for surprise to bee-keepers whose practical experience confirms the views of Dzierzon.

Dickel has been very severely handled by various learned doctors. His statements have been characterized by some of his own countrymen as "worth-

May-June, 1911

less fables," whilst to him as a "Gern scientific aspirations erally received the he so richly deserve that all eggs laid by tilised, and that the the sex of the eggs cretion from special Dzierzon met at a c ers in Salzburg in 1 fended their theories ful language.

Our esteemed c Jacob Haberer is a and holds that the la case. He states that others have, as result proved Dickel's theo and Dzierzon's wrong himself intends this s trials for himself, the we shall await with purposes, he says, to ony showing a strong drones—or else one m to take therefrom a young larvae in dron the larvae carefully He will also take a con colony raising good yell the same manner, extra worker larvæ from transferring the larvæ cells from the yellow co cells in the black col get yellow drones in t Also he believes he will queens from eggs transi cells! Our correspon Petilliot and others ha along these lines during with great success. W Haberer's courage. He the following article w the Rhenische Bienenzeit

Translated by Jaco

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less fables," whilst Dr. Phillips refers to him as a "German bee-keeper with scientific aspirations," who "has generally received the condemnation which he so richly deserves." Dickel insists that all eggs laid by the queen are fertilised, and that the workers determine the sex of the eggs by means of a secretion from special glands. Dickel and Dzierzon met at a congress of bee-keepers in Salzburg in 1898 where they defended their theories in somewhat forceful language.

Our esteemed correspondent, Mr. Jacob Haberer is a supporter of Dickel and holds that the latter has proved his case. He states that Petilliot and a few others have, as results of experiments, proved Dickel's theories to be correct and Dzierzon's wrong. Friend Haberer himself intends this summer to conduct trials for himself, the results of which we shall await with much interest. He purposes, he says, to select a black colony showing a strong desire to raise drones—or else one made queenless—and to take therefrom a comb with very young larvae in drone cells, extracting the larvae carefully from the comb. He will also take a comb from an Italian colony raising good yellow drones and in the same manner, extract carefully young worker larvae from the cells. By transferring the larvae in the workers cells from the yellow colony to the drone cells in the black colony, he hopes to get yellow drones in this black colony. Also he believes he will be able to raise queens from eggs transferred from drone cells! Our correspondent states that Petilliot and others have experimented along these lines during the past season with great success. We admire friend Haberer's courage. He has forwarded the following article which appeared in the *Rhenische Bienenzeitung*.—Editor.]

Translated by Jacob Haberer.

After successful experiments by Petilliot, of Heiligenwald, on Fr. Dickel's

theories, the latter is furnishing a comparison between his and the older theory.

According to the old theory, the queen is a perfect, and the workers are imperfect females. According to the new theory, the queen is only the one-half and the workers the other half of a perfect female. The performance of the equally valuable functions of both queen and workers is necessary for the accomplishment of the duties of propagation. The normal eggs of a fertile queen possess the ability to develop in three different directions, **but whatever they shall become will depend on the worker bees.** The queen may be termed the primary female, and the worker bees secondary females.

By the old theory, the eggs develop spontaneously. The new theory is just the reverse, as any egg, whether fertile or infertile, will not develop life, without the life-developing glandulous secretion of the secondary female—the worker bee. This condition cannot be denied any more, as it has been proved experimentally and by microscopical test. The old theory is: That the queen lays male or female eggs at her own will. The new theory states that a normal and faultless queen if properly mated, and not too old, will lay only fertile eggs in all cells. The proof is made by transferring newly laid eggs from drone cells to queen cells, these drone eggs resulting in primary females or queens, and also by transferring eggs from drone cells to workers cells, which eggs develop into secondary female or workers. Professor Bresslau has also come to the conclusion that as long as the system of the queen is in perfect order, no eggs can pass from the queen without receiving the seed from the seed bag (spermatheca). If, however, the seed is exhausted, she may still lay eggs but the result is "buckel brood" (drone brood in workers cells) similar to the progeny of a queen that has failed to mate. The old theory regards "buck-

el brood" drones and the genuine drones as being alike, because scientists then had no idea of the existence of four additional and equally important factors besides the egg and the seed germ. The knowledge of the four developing factors could only be gained by comparing results of experiments with fertile and unfertilised eggs in different cells.

According to results obtained by tests, we have four developing processes that we must regard as being of essential importance. 1. The germ "preformation" of the male contained in the egg which we will call A. 2. The germ "preformation" of the female contained in the seed. We will call this B. 3. A glandulous secretion of the worker which endows A with life and growth. This secretion we will mark A1. 4. A second glandulous secretion of the worker which gives life and growth to B, we will mark B1. A1 is the origin of the drone cell and the drone in it. B1 will be the origin of the queen cell and the primary female the queen. A combination of A1 and B1 in proper portions gives rise to the worker cell and the secondary female—the worker—as a result. The development of the different forms of the bees is consequently dependent on the foregoing facts.

In the worker cell A, B, A1 and B1 will combine and form a larvæ that will be capable of developing in three different hermaphrodite-larvæ. That the worker larvæ is a female larvæ is now contradicted by the experiments of Petilliot and Helters, as if the worker larvæ were not hermaphrodite larvæ, drones or males could never have been raised from them, seeing that a female larvæ could never change into a male. As the same larvæ, under different influences can become either queens or males, so these influences can only proceed from the secondary female, and she has to define the future destiny or what the larvæ or the egg shall become. In the drone cell

the condition will be a combination of A, B, and A1 and the result is the true drone. The germ for the female will remain dormant as B1 was not present. If a fertile egg in a queen cell the condition will be A, B and B1, and the result will be the primary female or queen. In this case the male seed germ is dormant, A1 being absent. These larvæ, under different developing conditions cannot afterwards be changed any more by transferring to other cells. Of this true male and female we have theoretically distinguished the true male and female, although they have the same form. These latter are the queens and drones that Petilliot and his assistants have raised from worker larvæ. The theoretical difference is necessary as they show some times quite different marks. Now let us look at the possibilities in the matter of development of infertile eggs in the different cells. If B is absent in the egg in the worker cell, A, A1 and B1 will combine but only A1 will become effective, leaving A1 and B1 to result in an imperfect male. In the drone cell an imperfect male must also develop as A and A1 will come together, and this cannot carry over the inheritance in the organism, as B is missing.

The old theory takes the development of a living organism from infertile eggs as a kind of propagation. But the new theory does not believe in that, as theoretically such males cannot generate.

Bees need salt whenever they are rearing brood. I have learned this for a certainty during my "fifty years among the bees." The way I give my bees salt is to make a solution of salt and water, (not too strong), in a basin and sprinkle it on the grass back of the house, a rod or two from the apiary, and it keeps them from bothering around the house, or going where they should not, and it keeps them from troubling my neighbors also. The sprinkling should be done frequently.

ILA MICHENER.

FOUL BROOD AND COLONY

Indexed

F. Dunda

At the 1911 session Legislature there was a Brood Act which is like that of Ontario's, but to the Minister of Agriculture to quarantine for nine days all colonies brought into the Province to destroy by fire all colonies and appliances that may be infected. It is probable that inspectors will be appointed.

So far as known, British Columbia is free of Foul Brood. This case was discovered among colonies in British Columbia from Ontario by a colony which were wiped out as soon as the Department of Agriculture got the word. Bee-keepers on a small scale are plentiful, so that any colony infected with Foul Brood will in for bee-keeping will be a start with the bees, and so risking the disease.

The Department of Agriculture recently issued a Bulletin on Foul Brood in British Columbia, a chapter of which is devoted to the prospects of the industry in the Province, the data having been secured by the Department of Agriculture interested in the industry of the Province.

Consumption of Store

On starting with beekeeping on Vancouver Island, I found many conditions that were rare in many ways from those customary in Illinois, so I am getting definite information from the State, usually with satisfactory results. I need not say that I do not but confine my present remarks to the phase of the wintering pro-

FOUL BROOD ACT FOR BRITISH COLUMBIA

Indexed

F. Dundas Todd

At the 1911 session of the Provincial Legislature there was passed a Foul Brood Act which is largely modelled on that of Ontario's, but in addition gives to the Minister of Agriculture the right to quarantine for nine months all bees brought into the Province, as well as to destroy by fire all old combs and used appliances that may be considered as infected. It is probable that two inspectors will be appointed.

So far as known, British Columbia is free of Foul Brood. Last summer one case was discovered amongst bees brought in from Ontario by a settler, but these were wiped out as soon as the Department of Agriculture got track of them. Bee-keepers on a small scale are quite plentiful, so that any one wishing to go in for bee-keeping will have no difficulty in getting a start without importing bees, and so risking the introduction of disease.

The Department of Agriculture has recently issued a Bulletin on Bee-keeping in British Columbia, the introductory chapter of which is devoted to a report of the prospects of the Province, the data having been secured from those interested in the industry in all parts of the Province.

Consumption of Stores in Winter

On starting with bee-keepers at Vancouver Island, I found myself up against conditions that were radically different in many ways from those I had been accustomed to in Illinois, so I tried to get definite information from those interested, usually with rather unsatisfactory results. I need not go into details, but confine my present remarks to one phase of the wintering problem. For in-

stance, I was assured by several that on account of the mildness of the winter the bees did not consume nearly so much honey as they did in colder regions. I took no chances, however, but fed each colony so that in September there was on hand at least 25 pounds, and I may say right away that I never found it too much.

At the spring overhaul for the last two seasons I have estimated the amount of honey on hand in each hive, and since I did the same in September I am now in a position to give actual results. In a nutshell, it is my experience that each colony in this part of the world consumes 18 pounds between the middle of September and the middle of March. Furthermore, a strong colony does not eat any more than a weak one, (in a good many instances a little less) but all in all, most colonies do not appear to vary very much more than a pound above or below the average.

Such bee-keepers as I have met report good wintering, and I have been similarly favored. For the first time I can report one hundred per cent. success, but my satisfaction is not perfect by any means. Having severe losses in my first and second winters, I made a radical departure in the third. The result spells success, but—confound these butts—my neighbors have shared my failures with me, and partaken equally in my successes. So my real problem is this, what influence did my new system have? I don't know. Now I ought to be ashamed to use such a humiliating phrase as "I don't know," especially after being unmercifully roasted for confessing ignorance, but my apology is that once I had thoroughly drilled into me the difference between knowledge and belief. I often think many people consider the words synonymous.

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ILA MICHENER.

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AN ACT FOR THE SUPPRESSION OF FOUL BROOD AMONG BEES

His Majesty, by and with the advice and consent of the Legislative Assembly of the Province of British Columbia, enacts as follows:

1. This Act may be cited as the "Foul Brood Act, 1911."

2. (1.) The word "Minister," whenever used in this Act, shall mean the Minister of Finance and Agriculture for the Province of British Columbia.

(2) The word "Inspec'o." shall mean Inspector of Apiaries for the Province of British Columbia.

3. The Lieutenant-Governor in Council may from time to time appoint such person or persons as he shall think proper to act as Inspector or Inspectors to carry out the provisions of this Act, and such Inspectors shall be under the direction and control of the Minister.

4. (1.) The said Inspector shall, whenever so directed by the Minister, visit without unnecessary delay any locality in the Province of British Columbia and there examine such apiary or apiaries as the said Minister may direct, and ascertain whether or not the diseases known as "foul brood" or "black brood," or either of them, exist in such apiary or apiaries, or in their vicinity.

(2.) Wherever the said Inspector is satisfied of the existence of such disease in its virulent or malignant type he shall order all colonies so affected, together with the hives occupied by them, and the contents of such hives and all tainted appurtenances or appliances that cannot be disinfected, to be immediately destroyed by fire under his personal direction and superintendance, and in such manner as may be necessary to prevent the spread of the said disease, and to thoroughly disinfect any appurtenances or appliances capable of being disinfected.

(3.) Where the Inspector, who shall be the sole judge thereof, is satisfied that the disease exists, but only in milder form or may be treated successfully, and has reason to believe that it may be entirely cured and eradicated, then the Inspector may omit to destroy or order the destruction of the colonies and hives in which such disease exists, but shall give the owner or caretaker of the diseased apiary or apiaries full instructions how to treat said cases. The Minister shall cause said apiary or apiaries to be visited from time to time, as he may deem best, and if after proper treatment the said bees shall not be cured of the disease, then he may cause the same, with the hives and all tainted appurtenances and appliances to be destroyed as in the preceding subsection hereof provided.

(4.) After inspecting infested hives or fixtures or handling diseased bees, the Inspector shall, before leaving the premises, or inspecting any other colony of bees or proceeding to any other apiary, thoroughly disinfect his own person and clothing, and shall see that every assistant with him also thoroughly disinfects his person and clothing.

5. The Inspector shall have full power, in his discretion, to order any owner or possessor of bees dwelling in box hives (being mere boxes without frames to transfer such bees to movable frames, to transfer such bees to movable frames in default of such transfer, the Inspector may destroy or order the destruction of such box hives and the bees dwelling therein, or may himself cause bees to be so transferred.

6. Any owner or caretaker of diseased colonies of bees, or of any affected appliances, who knowingly sells, or barter, or gives away such diseased colonies or any bees, comb, or honey therefrom, or any infected appliances, shall, on conviction thereof before any Justice of the Peace, be liable to a fine

of not less than more than one hundred imprisonment for a term of not less than two months.

7. Any person who destroys, or are destroyed, or are treated for foul brood who sells or offers for sale, or uses, or appliances of any kind, or instruction or treatment authorised by the Inspector who knowingly exports or elsewhere, any infected or other infected honey, or the fact that said diseases, shall, on conviction of the Peace, be liable to a fine of not less than twenty dollars, or more than fifty dollars, for a term not exceeding six months, and not less than one month, and such fine and imprisonment.

8. Any owner or possessor who refuses to allow the Inspector, his assistant or assistant to examine his bees or the contents of the hives they are kept, or refuse to permit infected bees and appliances to be examined, or refuses to permit them to be examined, or refuses to transfer bees from movable frames to movable frames before a Justice of the Peace, shall be liable to a fine of not less than twenty-five dollars and not more than fifty dollars for the first offence, and not less than fifty dollars and not more than one hundred dollars for any subsequent offence. Any Justice of the Peace shall, on conviction thereof, be liable to a fine of not less than ten dollars and not more than twenty dollars, and such fine and imprisonment.

9. When an owner or possessor of bees disobeys the direction of the Inspector, or offers resistance to the said Inspector in the performance of his duties, a Justice of the Peace shall, upon demand of the

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7. Any person whose bees have been destroyed, or are being or have been treated for foul brood or black brood, who sells or offers for sale any honey-comb, bees, hives, appurtenances, or appliances of any kind after such destruction or treatment, and before being authorised by the Inspector so to do, or who knowingly exposes in his bee-yard or elsewhere, any infected comb, honey, or other infected thing, or conceals the fact that said disease exists among his bees, shall, on conviction before a Justice of the Peace, be liable to a fine of not less than twenty dollars and not more than fifty dollars, or to imprisonment for a term not exceeding two months and not less than one month, or both such fine and imprisonment.

8. Any owner or caretaker of bees who refuses to allow the Inspector or his assistant or assistants to freely examine his bees or the premises in which they are kept, or refuses to destroy the infected bees and appurtenances or to permit them to be destroyed, or who refuses to transfer bees dwelling in box hives to movable frame hives, when so viction before a Justice of the Peace, be liable to a fine of not less than twenty-five dollars and not more than fifty dollars for the first offence, and not less than fifty dollars and not more than one hundred dollars for the second or any subsequent offence, and the said Justice of the Peace shall make an order types in its incipient stages, and is be- the Inspector.

9. When an owner or caretaker of bees disobeys the directions of the said Inspector, or offers resistance to or obstructs the said Inspector in the performance of his duties, a Justice of the Peace shall, upon demand of the said Inspector,

cause a sufficient number of special constables to be sworn in, and such special constables shall, under the direction of directing the said owner or possessor forthwith to carry out the direction of the Inspector, proceed to the premises of such owner or caretaker and assist the Inspector to seize all the diseased colonies and infected appurtenances and appliances and burn them forthwith; and if necessary the said Inspector or constables may arrest the said owner or caretaker and bring him before a Justice of the Peace, to be dealt with according to the provisions of the preceding section of this Act.

10. Every bee-keeper or other person who is aware of the existence of foul brood or black brood, either in his own apiary or elsewhere, shall immediately notify the Minister of the existence of such disease, and in default of so doing shall, on summary conviction before a Justice of the Peace, be liable to a fine of not less than five dollars nor more than twenty-five dollars and costs for each offence.

11. Upon receiving the notice mentioned in the preceding section, or in any way becoming aware of the existence of foul brood in any locality, the said Minister may direct the said Inspector to immediately proceed to and inspect the infected premises; but where the person giving such notice is unknown to the Minister, or there is reason to believe that the information in said notice is untrustworthy, or that the person giving such notice is actuated by improper motives, then the Minister may require the person giving such notice to deposit with him such sum as the Minister may decide, not exceeding ten dollars, as a guarantee of good faith, before the said notice is acted upon, and if it proves that said notice was properly given, then the said deposit shall be returned to the person giving such notice, but otherwise the said deposit shall be forfeited.

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12. The Minister shall have power to order into quarantine at the point of entry into the Province of British Columbia, or such other place as he may appoint, for a period of not more than nine months, and if found to be infected may order to be destroyed, any or all bees imported into the Province of British Columbia; also to order the disinfection of all bee appliances that have been in use, and to order the destruction by fire of all combs and frames in empty hives.

13. The Inspectors appointed under the provisions of this Act, shall be paid such salary or remuneration as the Minister may from time to time determine.

14. The Minister may from time to time, subject to the approval of the Lieutenant-Governor in Council, make rules and regulations for carrying out the purposes of this Act.

FOUL BROOD

At the Brant Bee-keepers' convention held at Brantford on the 8th and 9th of February last Mr. Alpaugh referred to the McEvoy system of curing Foul Brood as not always being a success, when applied during the honey flow, and was endorsed by Mr. Sibbald. It is quite unfortunate that such expressions as this should come from such eminent bee-keepers as Mr. Alpaugh and Mr. Sibbald without giving the reasons why. I had some experience last summer. I have an idea where the fault lay, and the more I study it, the more I am convinced that this idea is correct. In the first place there is no better system than the McEvoy system, but the trouble is simply this: Suppose I go to a yard of 75 colonies, and I find five colonies are affected with Foul Brood, the bees have all got guards at the entrance up till the honey flow, but during the honey flow, there is no guards, they evidently do not consider there is any need for them. As soon as the honey

flow comes on I go and shake those five on to starters, some young bees take wing, probably some for the first time, some for the second, and so on. They fly about, and go into any hive they come to, as they are young bees, and no guards at the entrance. They are quite welcome, but some may have diseased honey in their sacs. Now one might feed it to larva at once, another deposit it where it will not be used for feeding purposes for a month or more, but the disease is carried there just the same, with the danger of breaking out some day. To make a sure job of it, we must either isolate the diseased ones as fast as we find them, or treat the whole yard at once, though there are only a few affected.

ISAAC BALMER.

NEW "PEACE" PAPER.

"The Canadian Conciliator" is the prospectus number of a proposed monthly or quarterly magazine to be devoted to the interests of world-wide peace.

This prospectus number contains interesting extracts from speeches and articles by men famous as advocates of peace: Mr. Asquith, Lloyd George, Hamilton Holt, Norman Angell, author of "The Great Illusion," and many others. It contains also brief descriptions of the different Good-Will Organizations of the World, and some carefully compiled facts and figures which show clearly to what greater advantage the efforts expended in preparing for war might be turned.

There are, in addition to this, some reflections on war and peace, with news relating to international movements.

It is possible for Canada to exert a unique influence for the world's peace; it is time that we think of ourselves as citizens of the world, and think of everything in world-wide terms.

Those who wish to support such a publication and take part in forming a Peace Society in Canada should write to Mr. C. H. Keys, 226 Confederation Life Building, Toronto, Ont.

Of the Bureau of Entomology and Plant Quarantine

O.A.C. APICULTURE SHORT COURSE

Indexed

The Apiculture Short Course which was the first of the kind ever held at the Agricultural College was a great success.

In all, forty-three beekeepers were present in attendance, including twelve apiculture students of the Agricultural College and six other ladies, from various parts of the province. The course was held in the entire attendance of the following: Bruce, Carlton, Haldimand, Kent, Lambton, Middlesex, Perth, York, and Wellington, and twenty-five from the Province of Quebec.

Present also Dr. C. Gordon, Dominion Entomologist.

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E. F. PHILLIPS, Ph.D.

Of the Bureau of Entomology, Washington, D.C., who was in attendance at the O.A.C. Apiculture Short Course.

O.A.C. APICULTURE SHORT COURSE

Indexed

The Apiculture Short Course, May 1-6, which was the first Short Course of its kind ever held at the Ontario Agricultural College was a great success.

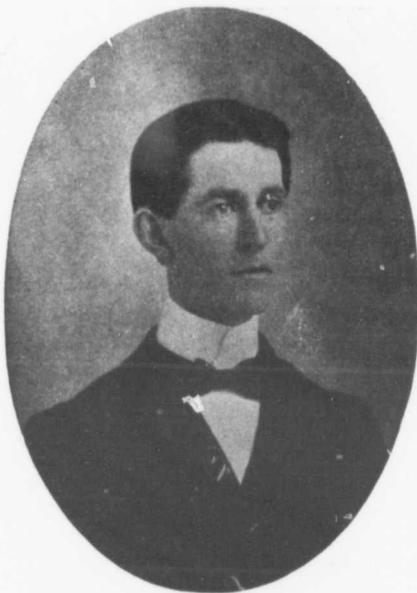
In all, forty-three bee enthusiasts were in attendance, including eight regular apiculture students of Macdonald Hall, and six other ladies, from different parts of the province. The counties represented in the entire attendance were the following: Bruce, Carlton, Dufferin, Elgin, Haldimand, Kent, Lambton, Leeds, Lincoln, Middlesex, Perth, Stormont, Welland, Wellington, Wentworth, York and the Province of Quebec. Nine of the sixteen Provincial Apiary Instructors were present, also Dr. C. Gordon Hewitt, Ph. D., Dominion Entomologist, and his as-

sistant apiarist, Mr. Beaulne, of the Central Experimental Farm, Ottawa.

The program consisted of forenoons devoted to lectures, the afternoons to demonstrations and practice, and three evening lectures of a more popular nature, copiously illustrated with lantern views. The weather being cold most of the week, the practical work took the form of demonstrations in the Apiculture Laboratory, doing such work as rendering wax from old combs, nailing up hives, nailing and wiring frames and putting in comb-foundation. A rather complete display of the different kinds of combs which bees build, also of machinery used in the production of honey and beeswax attracted much interest.

By Thursday it was warm enough to visit the College Apiary. The hives were

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Morley Pettit, Provincial Apiarist.

still in the boxes where they had been packed with planer shavings for the winter. These boxes were taken off by members of the class and stacked, the shavings were removed and the class was given a drill on handling combs, and looking for different conditions of the internal



Apiculture Short Course, O.A.C.— Three Groupes of Hives Unpacked.

economy of the hive. Friday afternoon was spent in a similar way, giving more attention to the symptoms of American Foul Brood. Saturday morning local apiaries were visited and some members of the class became discoverers of real cases of disease, much to their own satisfaction.

The lecture work was divided largely between Mr. Morley Pettit, Provincial Apiarist, and Dr. E. F. Phillips, Ph. D., in charge of Apiculture for the United States. Mr. Pettit handled the more practical problems of Apiculture and Dr. Phillips discussed the question of general behavior, anatomy, and diseases of bees. Prof. Edwards introduced the subject of disease by a general discussion of the nature of bacteria. Prof. Harcourt demonstrated simple chemical tests for the purity of honey. Prof. C. A. Zavitz explained the work of the Ontario Agricultural and Experimental Union, and suggested ways in which it could serve the bee-keepers of Ontario in addition to the work already done. Mr. LeDrew explained the principles of co-operation which might be applied to the business of honey production.

The evening lectures by Dr. Phillips

May-June, 1911

on "The Behavior of
"The Hawaiian Island
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MIDDLESEX BEE ASSOCIATI

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tures by Dr. Phillips

on "The Behavior of the Bee," and on
"The Hawaiian Islands and Their Bee-
keeping Industry" were largely attended
by members of the Normal Teachers'
Class, and students of the O.A.C. and
Macdonald Hall. At the Friday night
lecture President G. C. Creelman, B.S.A.,
L.L.D., occupied the chair in his usual
genial manner.

There were many expressions of appreci-
ation from members of the class as they
dispersed to their homes on Saturday,
May 6, and several wanted to know
when the next short course would be
held.

MIDDLESEX BEE-KEEPERS' ASSOCIATION.

The Middlesex Bee-Keepers' Associa-
tion held its spring meeting on Saturday,
May 6, in the city hall, London, with
the president, Mr. Moses Pearce in the
chair. As the secretary, Mr. Bainard,
found it necessary to resign, Miss Ethel
Robson, Idlerton, was elected, to act for
the remainder of the year. Mr. Anguish
brought the matter of the winter con-
vention, usually held at Brantford, be-
fore the meeting. At the last meeting
the members expressed their willingness
to meet at London in 1912, if the local
association wished it. A committee, with
Mr. Anguish at the head, was appoint-
ed to take charge of the matter. Mr.
John Newton gave a valuable paper on
the production of wax. He pointed out
the loss many bee-keepers were sustain-
ing annually from the lack of the proper
equipment for separating the wax from
the refuse.

A discussion on the propoal to make
a co-operative exhibit at the Western
Fair elicited an illuminating discussion
on the whole matter of co-operation, and
especially as regards the selling of horey.
It was very evident from the remarks
made, that Middlesex bee-keepers are al-
most unanimously opposed to attempt-

ing this method of disposing of their
crop. Even our good friends, Messrs.
Anguish and Wallace, whatever their
opinions may be with regard to free trade
in honey, are quite content to let well
enough alone when it comes marketing
their produce.

The matter of making a co-operative
exhibit received fairly general approval,
though some of the memters doubted
whether it could be successfully carried
out. Mr. Couse of Streetsville, made
some encouraging remarks, drawn from
his experience with such an exhibit at
the Pan American; and finally Mr. New-
ton suggested that the plan could be
financed by selling the honey, and after
deducting the expenses return what
remained to the exhibitors. With this
understanding, a committee was appoint-
ed to take the matter in charge, con-
sisting of the president, Mr. Kimball,
Mr. R. Wallace and Miss Robson. All
bee-keepers in the county who are inter-
ested in the matter are requested to
communicate with the committee as early
as possible, in order that a definite plan
may be settled upon.

Owing to the length of the discussion
with regard to making an exhibit at the
Western, there was no time for Mr.
Haberer to give his paper on "Prepara-
tions for Winter." However, it is hop-
ed that he will be able to be present at
the fall meeting to give the benefit of
his experience.—Communicated.

In answer to your request in the Bee
Journal asking for report of how bees
wintered, would say, I lost 3 out of 35.
They were wintered in cellar under house.
Two were queenless; the mice got into
one. My hives have deep frames like the
Jones' hive. Some of my neighboring
bee-keepers lost heavily through damp
and milldew.

Alex. McIntosh.
Castleton, Northumberland Co., Ont.

Our winter loss was fifteen per cent.
of our bees. Loss, owing to weak col-
onies and lack of stores. The prospects for
the coming season are fair.

Smithville. Isaac W. Field.



es Unpacked.

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ADVANCED BEE CULTURE

Indexed

A man is justified, after forty years experience, in claiming a knowledge of his business. So, when settling down to read anything from the pen of Mr. W. Z. Hutchinson, we have a comfortable feeling that we are in the company of a man in whom we may place complete confidence. We cannot afford to be critical. We sit at the foot-stool of a master. In this spirit we commenced the perusal of the new edition of *Advanced Bee Culture*, and at its completion, our respect for the editor of the *Bee-keepers' Review* had still further increased.

Many of our readers will be glad to learn a few particulars regarding the author of the work before us, and we take this opportunity of printing portions of an autobiographical account of Mr. Hutchinson's career, printed last year in the *Bee-keepers' Record*.

"Fifty-eight years ago I opened my eyes upon this world in Western New York. Four years later my father, mother, and I migrated to Michigan, then mostly covered with magnificent forests. Father had to cut a road some distance through the woods to reach the log cabin that he had built. It was here that I grew to manhood, saw the forests recede and give place to cultivated fields, log-houses give place to more comfortable modern homes, ox-teams supplanted by horses, and, still later, the iron horse was given a warm welcome.

"Those were happy days—hunting, fishing, trapping, gathering wild nuts and berries, and attending district school. I think that the one thing lacking was reading matter; I often think if I could only have had a tithe of the flood of literature that now pours into my doors what a blessing it would have been. It was my ambition to at least graduate from a high school, but the district school, with a few months at the Flint high school

was the extent of my book education. Poor health, lack of means, and the need for my services at home prevented further schooling. It is possible that this lack of a liberal education has not lessened my usefulness, but it has always been a matter of regret that I could not, by study at school, have perfected myself to a greater extent in the use of language.

"As I approached manhood the choice of a profession or business caused much anxious thought. So many different things—music, literature, and mechanics—all appealed to me that it was difficult to decide. I think now that it was the poetical or romantic side of bee-keeping that was the final factor in deciding me to adopt the profession that I have followed and loved nearly all my life. Thirty-eight years ago I decided that apiculture should be my life work; and, while it is a profession in which few become wealthy, it has furnished me with a comfortable living, and satisfied my hopes, desires, and ambitions.

"As you perhaps know, more than half of my apicultural life has been spent as editor of the *Bee-keepers' Review*, in the publication of which my greatest desire is to be of real help to bee-keepers, to aid them in making of bee-keeping a more safe, pleasant, and profitable pursuit. With the conditions that we have here it is possible to make a greater financial success by engaging in the business exclusively, branching out and establishing out-apiaries, and even employing help in the busy season. A leading feature of the *Review* is to encourage and bring about the adoption of this style of bee-keeping. As you may know, a brother and myself have for several years been engaged in this kind of bee-keeping, one inducement for my taking it up being that we could thereby show by actual example what could be done in that line."

"Bee-keeping as a Business" is the

May-June, 1911

note that runs through me, which, in fact, those who are getting butter by raising hives the bread and butter a happy description calling! But, we call Hutchinson, "bee-keeper" means a great deal more words convey to me perfection of a man but little relation to fortune; and many a of the bees over his head deeper and sweeter than the merchant prince of his thousands." Ag sentiments as the few can understand them in the heart of the author to build himself a real stone fire-place and shore of some one of the inland lakes of North establish an apiary hard woods, and pass at least summer in that sylvan a place to take bee-keeping in the autumn, when time be spent around a fire knots in the fire-place other such passages tell of inner man. And there I admire him.

Mr. Hutchinson refers of producing good results "the gentleman's system" of bee-keeping might well be a tire system of bee-keeping by him. Hundreds, perhaps, of bee-keepers, at the present "muddle" through the business a week or so late in the year. They may have amassed their occupation to an encyclopedic. They understand the reasons for their failures and are unable to avoid them. Their experience has not yet carried

note that runs through the whole volume, which, in fact, is dedicated "To those who are getting their bread and butter by raising honey to spread upon the bread and butter of others." What a happy description of the bee-keepers' calling! But, we believe, with Mr. Hutchinson, "bee-keeping as a business" means a great deal more than the bare words convey to most persons. "The perfection of a man's happiness bears but little relation to the size of his fortune; and many a man with the hum of the bees over his head finds happiness deeper and sweeter than ever comes to the merchant prince with his cares and his thousands." Again we find such sentiments as the following: "Perhaps few can understand the longing there is in the heart of the author of this book to build himself a real log cabin with stone fire-place and chimney, on the shore of some one of the beautiful little inland lakes of Northern Michigan, establish an apiary hard by, right in the woods, and pass at least a portion of each summer in that sylvan retreat. What a place to take bee-keeping friends to in the autumn, when the evenings could be spent around a fire of blazing pine knots in the fire-place!" These and other such passages tell us of the real and inner man. And therefore we love and admire him.

Mr. Hutchinson refers to his system of producing good extracted honey as "the gentleman's system." This expression might well be applied to the entire system of bee-keeping as expounded by him. Hundreds, perhaps thousands, of bee-keepers, at the present time, just "muddle" through the bee year, always a week or so late in their operations. They may have amassed knowledge of their occupation to an extent quite encyclopedic. They understand well the reasons for their failures and yet seem unable to avoid them. The fact is, their experience has not yet crystallised into a

proper system. To such, we heartily recommend *Advanced Bee Culture*.

There are two chapters that alone are worth the price of the whole book, namely: "The Production of Comb Honey" and "Producing Good Extracted Honey." All will not agree with the author's methods, perhaps, which to many may seem somewhat unorthodox. But for the production of the highest grades of honey, we believe that Mr. Hutchinson's system is as good as any that we are acquainted with. The whole subject is dealt with in detail, and, as we have already said, these two chapters are most valuable to beginners.

Other chapters in the book deal with the marketing of honey, out-apiaries, diseases, apiarian exhibits at fairs, the rendering of beeswax, feeding, wintering, and a host of other most important matters, and go to make up one of the most valuable and interesting works on bee-keeping ever published.

The book is issued from the press of the A. I. Root Co., which is to say that nothing is wanting as regards the work of the printer and binder.

I went into winter with 125 colonies. All wintered well except three colonies. One starved outdoors and one in the cellar, and one swarm perished outdoors with plenty of stores. There were 78 wintered outdoors in chaff hives and 47 in cellar. One was robbed after being set out. They were strong enough but did not defend themselves, and I did not notice it in time. Strange how once in a while a colony will use so much honey in wintering; and again another will cluster up and never seem to move and perish with honey all around them. December was cold. The spring has been very cold and wet here, except a few days week before last. Bees are doing well though and the prospects are good, for clover has wintered well. We must feed after fruit bloom if we have a season like we had last year. The wild raspberries bloom right after fruit bloom and we never have to feed here if the weather is right.

Low Banks.

Ila Michener.

Indexed **QUEEN REARING AND RE-QUEENING.**

The following discussion took place at the last meeting of the Ontario Bee-keepers' Association, in reference to the above subject, which will doubtless prove of interest at this particular time.

Mr. Pettit: This subject (queen rearing), next to the question of foul brood, is the most important subject we have in bee management. The matter of queen rearing comes in very close touch with the handling of foul brood, when we consider that our real problem in the disease question is European foul brood. This disease is not cured unless the bees are Italianized. Mr. Scott mentions this in his report. I am anticipating the Inspector's report a little, but I feel like hammering on this one point as much as we possibly can. Mr. Scott says in his report that the territory he went over last year where the bees were treated successfully and the owners did not Italianize, were just as bad again this year, and were in many cases completely wiped out, where if they had been Italianized they would have been all right. Mr. Scott being right in the middle of the district, reports a splendid crop of honey, because, in his own apiary, he Italianized and is out of trouble with the disease.

As Mr. Clark told us last year, it is not a question of having the market for the queens it is a question of having the queens for the market, and the enormous amount of Italian queens needed raises the question of the necessity of easy methods of rearing queens. What really can we do to encourage the Italianizing in European foul brood districts, and all around them.

Mr. H. E. Eyre, Chantry: Are we to understand as to the treatment of European foul brood that we have no surety of success unless we do Italianize, and if we do Italianize then we have foul brood cured?

Mr. Hurley: You have got to have the colony queenless while they are cleaning it up.

Mr. Eyre: How long will the colony work when the queen is out?

Mr. Hurley: Mr. Alexander says about 24 days, although Dr. Miller says in conjunction with Mr. Alexander's method he can keep them queenless for 15 to 20 days and succeed in getting them cleaned up and then introduce the queen cells.

Miss Ethel Robson, Idleron: I read the directions given in the report of last convention and made an attempt at it. I raised somewhere about 50 queens. When I accomplished it I found it very simple. With reference to the matter of royal jelly in the cells, I found it depended largely on the colony, where they cleaned it up; if it was a colony ready to accept the cells and go to work I don't think they took the royal jelly out, because shortly afterwards they were adding to it rather than taking from it. The method I followed in growing the cells was a little different from that described. I didn't begin till fairly late in the season when the colonies were getting in pretty good shape, and then I gave extra brood to these to make them a little stronger; I placed brood in the supers, and I would only take a hive that had a super well filled with bees; then I placed my stick with the cell cups on it in the super with the queen down below under the excluder, and in very few cases did they fail to draw out nearly all of the cells. On an average I didn't count on more than about eight or ten cells from a good colony, but they would draw them out and draw them out well and take care of them until they were ready to put them in again. It really made it very simple. I have something now where I think you will say the woman has an advantage over the man as a bee-keeper. When I

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was always handy, a
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Mr. Dickson:
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prepared my cells I didn't use the im-
plements recommended by Mr. Clark.
Being a woman I used a hair pin; it
was always handy, and one of the larger
kind served fairly well to spread the
royal jelly. For transferring larvae, if
you want to do it easily, get a fine
hair pin and you can lift them
out beautifully, and you don't even have
to cut the cells down very far; you can
lift them out every time. Of course
you lose some, as Mr. Sibbald did, by
them hatching before you expect, and
you lose your reckoning, but you don't
need buy very many queens to requeen
your yard.

Mr. Dickson: Mr. Pettit spoke
about the introducing of Italian
queens as much as possible. I
want to say to every beginner
who has got the black or German bee
begin to Italianize as quickly
as you know how. We hear a
good deal about European foul brood
and I was surprised to think it was so
prevalent in Quebec. As Inspector, my
territory is right on the border of
Quebec, and I must say the bees are
pretty much all blacks. I advised every
bee-keeper I came across to go in for in-
troducing the Italian queen as quickly as
they knew how. I even spared a little
time to tell them how to go into it. Ital-
ianizing is easily done. I fall back on nat-
ural queen cell raising every time for
myself.

Mr. C. P. Chisholm, Wallbridge—I
live close by Mr. Scott. I think one of
the great dangers with reference to Eur-
opean foul brood in that section has been
by moving bees from diseased parts to
parts that were not diseased. I know
or have heard of two or three cases. I
think as an Association we should ask
our authorities to require an inspector to
inspect bees if they are to be moved
from a section where there is disease to
a section where there is none.

Mr. Timbers, Sherrywood—I suggest
that instead of having some one to lec-

ture to us we should have more demon-
strations similar to that which Mr. Clark
gave us last year.

Mr. Lowey, Cherryvalley—Is the black
bee really an inferior bee to the Italian?
I am a friend of the black bee and I
would like a demonstration from some-
body that the Italian is a superior bee
in the bringing in of honey or money. I
never yet had an Italian queen whose
colony would produce in a season the
amount of honey my blacks or browns
or German's or hybrids or whatever you
like to call them, would.

Mr. Pettit—If European foul brood
strikes you, you will get rid of your
blacks all right.

Mr. Chrysler—If you will Italianize
your apiaries, and do not keep rearing
more Italian queens, your bees will grad-
ually get darker year after year, and I be-
lieve you will get nearly black bees in time.
I am a friend of the black bee only for
one or two reasons. I would never think
of Italianizing if it were not for the
facility of handling them, and as this
black brood may give us some trouble
it may be some help in that respect, but
otherwise it seems to be a death blow to
good comb honey to get rid of the black
bee.

Mr. Sibbald—I think it is a pity to let
the black bees get so much credit. A
few years ago I was just as ignorant as
my friends who have just spoken; many
a time I have advocated dark bees in
this convention, and some of the mem-
bers that have been here will remember
it likely, but I know better now; I am
learning all the time and I hope they
will learn, too. There is no comparison
between the black bees and the Italians.
We had this year in our home apiary
just three colonies of black bees left,
and they would come and attack the boy
when he was mowing the lawn, and he
knew where those black bees were with-
out looking at them to see the color.
That is enough to change me.

Mr. Anguish—Did you never have Italians do that?

Mr. Sibbald—No. The strain I have now are not nearly so cross.

Mr. Brown—You want the Cyprians to do it.

Mr. Sibbald—I could this year walk through my yard of 170 colonies without a veil on and I could work in it without being stung. As far as getting honey, the Italians on the average will get more honey than the black bees. You may get one good colony of black bees and have another one or two that are not in shape and don't do so well. As far as getting nice comb honey, all the difference is in the capping; the Italians will cap a little closer to the honey, but they will fill the sections better than the black bees; that is fill them out closer to the outside; and, taking it all through I would prefer the Italian bees to the black bees for comb honey.

In this year's work in my own apiary I raised probably between 250 and 300 queens and on that alone I must have saved \$150, whereas the year before I bought these queens. I found the work pleasant, it does not take very much time, and I am sure that any bee-keeper that will just make the attempt to raise his own queens will be, to use a common expression, tickled to death.

Mr. O. L. Herschiser, Kenmore, N. Y.—There is one matter Mr. Sibbald spoke of in which I am sure he is wrong, and that is as to the temper of black bees. I have four apiaries and one of them is composed almost entirely of black bees and that is the only yard I can work in all day without using a veil. However, there is another point in reference to the black bees in which he is right and that is that they are not on the average as good honey gatherers as the yellow bees. I have a few Italians in this yard of black bees and comparatively they store about one-third more honey than the

average of the blacks, so that I am convinced that the Italian bees are better on the average for gathering honey than the blacks, but I have found that my Italians are a little more vindictive than the blacks; that is I have got to use a veil and smoke more freely. That may be caused by the strain of bees.

Mr. Laing—I don't agree with Mr. Herschiser in reference to the matter of temper; I am inclined to agree with Mr. Sibbald. I had that demonstrated to my satisfaction this summer. I had a yard of about 75 colonies and they were principally blacks and I not only had to wear a veil but I actually had to put on long sleeved gloves, and they would sting me everywhere they got a chance, even through the clothes and gloves. During the summer I happened to go down to Mr. Pettit's yards and I was really amazed at the difference in the yard, practically on the same day I had left my own, and I hadn't been stirring my own up either. I went down there and he was extracting honey and had two or three men working around and yet they were as quiet you might almost say as flies; no attempt to sting whatever.

Speaking of Italianizing, I think the most of the intelligent up-to-date bee-keepers know there is a wonderful difference in what is called Italian. In the Island of Jamaica I had some experience with some they called Italians, but I think there was considerable Cyprian blood in them and they were certainly savage with a vengeance; and I had a few of those along with the blacks which were supposed to be Italian bees; I don't believe they were Italians at all; they were yellow enough, but they were just as savage as the blacks.

Mr. Chrysler—While I have been inspecting I have occasionally run across several places where they were as near as I could judge pure black bees and they were very, very quiet. Whereas in other cases they were the most vindic-

tive and crosser than anything to do with.

There is a vast difference.

Mr. J. D. Evans—My experience is this: In Italy the Italians they are quiet, but they are quiet, but with a small portion it is ten times worse. The blacks are great covards, you can smoke them they run and you don't have to get off the bees. The blacks stick their noses in there, and you have to get a lot off. However, the Italians mine altogether. I had a hundred queens from Italy, tucky, and I think that is anything in the black.

Mr. Anguish—I think it depends on the man, cross or not. I was with Mr. Alpaugh one year, he had harmony there with those bees. They were mixed. Another man had a yard, and he had to wear mitts in May, 300 colonies of bees, principally black. You see the nature of your honey gathering goes, colonies—they are not are crossed with Italians, and I compare with Italians, and I want the dark race of the Italians will fill the fuller. Maybe they see it that way. The Italians are not in the first place they won't be all rough; it is like the wind is blowing over the place they fill the comb always looks watery. I compare the man as much as the man as much as the man. Mr. McEvoy, Wood had a good deal with what

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tive and crossst bees I ever had any-
thing to do with. It seems to me there
is a vast difference in the black bees.

Mr. J. D. Evans, Islington—My ex-
perience is this: If you get pure bred
Italians they are quiet, or pure blacks
they are quiet, but if you get a black
with a small portion of Italian blood,
it is ten times worse than either. The
blacks are great cowards and when you
smoke them they run clean off the comb,
and you don't have any trouble brush-
ing off the bees. The Italians will
stick their noses in the cells and stay
there, and you have to brush the whole
lot off. However, I have Italianized
mine altogether. I bought nearly one
hundred queens from Mr. Moore of Ken-
tucky, and I think they are far ahead of
anything in the black line.

Mr. Anguish—I think it pretty nearly
depends on the man whether they are
cross or not. I was running a yard for
Mr. Alpaugh one year, and we always
had harmony there when I was running
those bees. They were Italians and
mixed. Another man ran them the next
year, and he had to run them off the
farm—they stung the cattle. He had
to wear mitts in May. I have nearly
300 colonies of bees, and they are prin-
cipally black. You have got to know
the nature of your bees. As far as
honey gathering goes, I have got black
colonies—they are not black either, they
are crossed with Italians—that will com-
pare with Italians, and for comb honey I
want the dark race of bees. Some say
the Italians will fill the sections a little
fuller. Maybe they will, but I can't
see it that way. Take capping and the
Italians are not in it at all. In the
first place they won't cap smoothly; it
is all rough; it is like water when the
wind is blowing over it; in the next
place they fill the cells too full. It
always looks watery. So I think it is
the man as much as the bees, after all.

Mr. McEvoy, Woodburn—I agree a
good deal with what Mr. Anguish says.

In all the be journals you see pictures
given of people wearing veils. I would
feel ashamed to have a veil on. I have
not worn a veil in over 30 years. You
can't find one around my place and I
have handled all kinds of bees. I will
guarantee to handle the crossst colony
of bees you can produce and inside of
five or ten minutes at the outside I will
agree to shake the bees in my face and
not get stung. I think there is too much
veil work and as for mitts that is out of
the question. Mr. Anguish spoke
about the blacks filling the comb fuller;
that may be so, but they cap the cell
closer and the least chill or moisture
swells the honey and the capping looks
kind of soaked. I will agree with him
that it is the prettiest comb honey, but
at the same time I don't want the
blacks.

Mr. John Newton, Thamesford—I
don't feel ashamed to wear a veil. I
was with Mr. Hall for years and I never
wore a veil, but I don't think I could
do the same work without a veil as
with one. I think this discussion this
afternoon has been very profitable. I
used to advocate the black bees entirely,
but I have come to see things in a little
different light these later years. I believe
there is a great deal in the bee-keeper
himself. There is so much of the Cyp-
rian blood introduced to-day into Italians
that the more you smoke them the worse
they will get. I believe the black bees
give us a little nicer comb honey, but
unless it is for exhibition purposes I
think it is quite salable and pleasant to
the eye even from the Italians.

Mr. J. J. Hurley, Brantford—I have
had experience with the black and It-
alian bee and I can say that I think the
black bee is just as good a honey pro-
ducer all round as the Italian; but there
is this against the black bee in my
opinion. If you open the hive and smoke
them they will rush with great excite-
ment out of the hive at the front and
come up the sides; they are a more ex-

citabe bee and they are a little bit crosser. On the other hand the Italian is a nicer looking bee. I believe this is a great part of the favorable attitude that bee-keepers assume towards the Italian bee, because it is a more handsome looking bee and makes a mental impression upon the mind which is favorable to that bee. I prefer the Italian bee, but from my experience of the black I would not say that the black is not just as good a honey producer as the Italian.

Mr. Pettit—The question before us is that of European foul brood, and the relative merits of black and Italian; all the minor points drop out of existence when you consider Mr. Scott's district increasing from 100 to 400 square miles with foul brood. When we have these facts put before us and we see businesses ruined because of the fact that owners have failed to Italianize, then I consider all these other points with reference to black and Italian bees have no importance to us at all this afternoon. We must Italianize in the face of European foul brood which is bound to sweep over Ontario as it has over the States.

Mr. McEvoy—Mr. Pettit spoke about European foul brood. Why not call it black brood? That is really what it is, and it is the outcome of black bees and their crosses. Italian bees are the greatest preventive. They take the disease just as well but they are the best house cleaners and the best brood feeders. The others are miserable feeders. I don't like the blacks at all on that account. Why not breed the Italian. They will give more honey, and they will prevent the spread of the disease.

Mr. Beaupre, Forrestville—I would like to ask Mr. Sibbald his method of handling nuclei.

Mr. Sibbald—The method I have followed in making nuclei is to take one or two combs of brood up from the bottom and place it in the top story, and in about a week's time after that lift that out with the bees that will adhere to

it, just as they are, and place them in the hive with a division board in it or a hive with a fixed division board in it. It is all the same. Then give them a queen cell and when that queen is hatched and mated and commences to lay it is taken away and introduced into the full colonies which are arranged, and another queen cell given to the nucleus, and in that way I keep the nuclei busy for a couple of months in raising queens.

Mr. Laing—After the nucleus is made and the queen is mated, when you want to introduce that queen to another colony do you take the whole business or just the queen?

Mr. Sibbald—Just take the queen. Of course you can make as many as you like that way. If you have 100 colonies you can make two out of each one.

Mr. Laing—What is your method of introducing?

Mr. Sibbald—I have different methods for different parts of the season, but if I have a hive marked to change the queen and I have a queen ready to put in I go and catch the old queen and put her in the cage and leave her in the cage, and towards evening take her out and put the young queen in in her place in that very cage; I put a little perforated capping of wax or anything over the stopper to keep her from coming out immediately, and let the bees release her, and probably she will come out in 24 hours. I don't have very much loss in that way. I can do that in the outyards, fix it all up while I am there, and then the queen will be introduced before I go back again.

Mr. Galbraith—In your rising of those queens are you able to have all of the same color or do you have some leather colored ones from the same larvae you have taken out of this frame? I can't get them to come out all of one color?

Mr. Sibbald—I find that trouble too. Perhaps out of a dozen queens I would get two that didn't please me in color, quite a leather color, and I usually killed them; I didn't like them. Another

cause for that is if they are hatched in the hive they will be of the same color. The temperature seems to bring out the inferior queen. I think I have noticed that a colony of bees will produce the honey flow that is the best.

Mr. Pettit—Is there any difference in the quality of the color?

Mr. Sibbald—No.

Mr. Miller, Ealing—I find queens raised early in the fall will have a better color. Your queens will be of a different color. That has been my experience. I have not had anything to say about rearing from the fact of the Clark's system, but I have seen a little. I think it would be a nicer method of handling the Pratt system was practiced. I used the Clark system, and I have a little first wrote his work very much and raised the Pratt went into that at the perfected the system, you have a great deal more work; you can go on and on in caging them on the through your cover. Your colony at all in the until you cage them for wish to insert them in your

NIAGARA FRUIT C RECIPROC

(From the Fruit C) Before the reciprocity announced, buyers of raspberries and tomatoes on the coming season started to in the neighborhood of those paid on contract soon as the proposed change were made known the

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cause for that is if they are a long time
 in hatching they will be nearly all dark
 color. The temperature and lack of nour-
 ishment seems to bring an inferior queen,
 and the inferior queen seemed to be dark.
 I think I have noticed that an Italian
 colony of bees will produce brighter bees
 in the honey flow than late in the fall.

Mr. Pettit—Is there any real differ-
 ence in the quality of those bees, except
 the color?

Mr. Sibbald—No.

Mr. Miller, Ealing—I think you will
 find queens raised early in the season or
 late in the fall will have that variation.
 Your queens will be darker as well as
 have somewhat of a different appearance.
 That has been my experience. I have
 not had anything to say about this queen
 rearing from the fact that it was Mr.
 Clark's system, but I would like to say a
 little. I think it would help some into a
 nicer method of handling those cells if
 the Pratt system was looked into and
 practiced. I used the Doolittle when Do-
 little first wrote his work, which is now
 the Clark system, and I enjoyed the work
 very much and raised nice queens; but
 Pratt went into that at a later time and
 perfected the system whereby you can
 have a great deal more pleasure in your
 work; you can go and inspect those cells,
 in caging them on the Pratt system,
 through your cover. You don't disturb
 your colony at all in handling your cells
 until you cage them for your nursery or
 wish to insert them in your nuclei. You

use the flange cell cups and the cups
 hang on a flange through your cover, and
 then you place another cover over it, and
 in examining them and changing them
 you simply raise your outer cover and
 lift your cell along with your bar. It
 makes the work a great deal simpler and
 more pleasing, and you are apt for that
 reason to make a better success of it.

Mr. Beaupre—By caging those old
 queens are you troubled with queen cells
 being built out below?

Mr. Sibbald—They might start queen
 cells below but as soon as the young
 queen gets out they will destroy them.

Mr. Timbers—I would like to ask Mr.
 Sibbald if he did not, when he was tak-
 ing the cells off the bar, break some some-
 times?

Mr. Sibbald—I made a very much
 heavier cell than Mr. Clark recommend-
 ed. He said dip three times and I found
 that those were not very strong, but I
 found it was better to dip a dozen times
 and make a strong cell, and then you
 can handle them with your fingers and
 there wasn't any danger of breaking them
 at all.

Mr. Timbers—That was my experience,
 I broke some, and to overcome that I
 used gun wads.

Miss Robson—I found this summer that
 I had some weak colonies; in the spring
 I found it was a great advantage to di-
 vide those weak colonies up into nuclei
 and have them ready for introducing
 young queens.

NIAGARA FRUIT GROWERS ON RECIPROCITY.

(From the Fruit Magazine).

Before the reciprocity agreement was
 announced, buyers of raspberries, straw-
 berries and tomatoes on contracts for the
 coming season started out to pay prices
 in the neighborhood of Grimsby equal to
 those paid on contract last year. As
 soon as the proposed changes in the tar-
 iff were made known the canning factory

buyers announced their prices over those
 of last year, partly owing to local con-
 ditions of competition, but chiefly in an-
 ticipation of rivalry from United States
 buyers. This action on the part of the
 buyers has given many fruit growers
 around Grimsby the idea that reciprocity
 may not be such a bad thing as they
 thought at first.

To show that the canning industries
 are paying more for certain future crops,
 and that they are displaying more than

usual energy in closing contracts for them, the following statement of business done by Mr. E. D. Todd for the Dominion Cannery branch factory at Grimsby is given:

Twenty-two thousand bushels of tomatoes at 27½ cents per bushel. (Price last year, 25 cents per bushel).

Four thousand crates of raspberries at \$1.80 per crate, or 7½ cents per box. (Price last year \$1.68 per crate).

Three thousand crates of strawberries at \$1 per crate, or 4¼ cents per box. (Price last year 96 cents per crate).

One hundred and five tons of butter beans at \$30 per ton. (Price last year \$30 per ton).

Fully two-thirds of the season's contracts have been closed by Mr. Todd, and this two-thirds proportion comprises a list of sixty-eight fruit-growers.

The above prices are the same as those offered by Mr. E. D. Smith's Company, the chief rival of the Dominion Cannery.

As one pushes on farther into the Niagara peninsula, leaving Winona and Wentworth county to cross over into Lincoln, one notices a moderation of opinion among the fruit-growers on the question of reciprocity. The cry against the revision of the tariff is not as decided nor as heated as it was when the deputation went to Ottawa.

There are still many, however, who are unalterably opposed to reciprocity, but even those positivists say that their views are problematical. It may be said, too, that comparatively little objection is made to free trade in anything else than peaches. Peaches seem to be the fruit in which there is the largest outlay, and which in the minds of many has the least chance of competing successfully with the United States. In small fruits including grapes, and in apples, pears and plums, it is generally conceded that reciprocity would do no harm and many who even in the face of present duties now ship raspberries, cherries, currants and other small produce across the bor-

der think that a real benefit will result.

Those who are optimistic amongst the fruit-growers offset the arguments of the pessimist in the free-trade discussion by pointing out: (1) That the assessment of lands has been increased ever since reciprocity was proposed. (2) That the quality of the Canadian fruit, especially peaches, cannot be rivalled by any early Southern product from the United States. (3) That it would be better for the Niagara Fruit-grower if he could devote all his time to raising the high-grade, high-priced late Crawford peach, and leave the early peach to the United States grower. (4) That the pre-cooling plant, which is to be installed at Hamilton, will enable the grower to compete far more successfully on the western and other distant markets. (5) That the canner is offering higher prices than ever before for small fruits. And (6) That good profits can be made now on many kinds of fruits that are being sold to the United States.

Dr. Buchanan, of Beamsville, president of the Ontario & Western Co-operative Society, took particular pains to deny the report that lands were decreasing in value in this district. He expected that as a result of Mr. E. D. Smith's statement in a Toronto paper much English capital would be shut off for a time from investment here. The doctor said that he was sure reciprocity would hurt the Canadian peach trade. "I used to live in Minnesota and plums and peaches from Wisconsin never cost more than they do here," said he. "And Duluth dealers now can send any abundance of fruit to Fort William and Port Arthur in the face of the duties." The same was true of the Canadian West. "Montana and Idaho have been trying for years to establish a fruit business," said Dr. Buchanan, "and their crops, which are ready just at the same time as ours, have always been too late for the New York markets. If reciprocal trade is declared Montana and Idaho will be able to pour any amount of their products into Winnipeg."

Mr. C. J. McCauley that Niagara growers make a cent on peach market, where fruit of was being sent from Michigan and Wisconsin said that there young peach trees from old in the district betw St. Catharines. This borne any fruit yet, a older trees that were between three and four and.

Mr. J. Van Dyke said a large apple orchard reciprocity would no doubt that he wished to see fit as a whole.

Mr. H. K. Griffiths reciprocity would help e for the first two years connections would be en cause of the extra small the United States. But Griffiths thought that th peaches enough to swar grower. "Michigan has t yet uncultivated that ca fruit," said he. "I don't ada will benefit in any ciprocity, and I think the ment has made a mistal

Three men disposed hopeful side of the new were found in the office conbridge, manager of the Growers' Society; the o party were Mr. W. J. urer.

Mr. Drope said he w lently opposed to the re ment now as when it "Since I have studied it where it may help us some "In any case I know th been assessed for \$200 than it was last year. for \$500 last year and is a

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r. Buchanan, "and their ready just at the same ive always been too late k markets. If reciprocal ed Montana and Idaho pour any amount of their innipeg."

Mr. C. J. McCallum did not think that Niagara growers would be able to make a cent on peaches in the Buffalo market, where fruit of the finest quality was being sent from New York State, Michigan and Wisconsin. Mr. McCallum said that there were some 400,000 young peach trees from one to four years old in the district between Hamilton and St. Catharines. This number had not borne any fruit yet, and the number of older trees that were giving fruit was between three and four hundred thousand.

Mr. J. Van Dyke said that he owned a large apple orchard and that reciprocity would no doubt benefit him, but that he wished to see the district benefit as a whole.

Mr. H. K. Griffiths thought that reciprocity would help every fruit-grower for the first two years before old trade connections would be entirely broken, because of the extra smaller demands from the United States. But in the end Mr. Griffiths thought that the Americans had peaches enough to swamp the Canadian grower. "Michigan has thousands of acres yet uncultivated that can grow beautiful fruit," said he. "I don't see where Canada will benefit in any respect from reciprocity, and I think the Liberal Government has made a mistake."

Three men disposed to look on the hopeful side of the new trade agreement were found in the office of Mr. P. Falconbridge, manager of the Grimsby Fruit-Growers' Society; the other two in the party were Mr. W. J. Drope, secretary of the society, and Mr. R Lipsit, treasurer.

Mr. Drope said he was not so violently opposed to the reciprocity agreement now as when it first came out. "Since I have studied it a little I see where it may help us somewhat," he said. "In any case I know that my land has been assessed for \$200 more per acre than it was last year. It was assessed for \$500 last year and is assessed for \$700

per acre this year. Land will always be valuable here, owing to the limited amount of it, and it is not true that values are decreasing." Mr. Drope said that he was going to grow black currants this year, as they could be shipped profitably to the United States." I think the opinion around these parts now is that we are hoping for the best, but we would just as soon have been left alone."

Mr. P. Falconbridge said that four years ago he had shipped hundreds of crates of raspberries to the United States, to Hungerford, Smith Company, Rochester, on the basis of \$3.10 f.o.b. Grimsby. The profit on black currants shipped to the United States last year had been greater than on those sold in Canada. Growers had realized \$1.35 net per basket on the American consignments. Mr. Falconbridge also discounted the idea that land values were endangered. "Mr. Wolverton had just sold an apple orchard to an Ottawa man for \$400 per acre," he said.

Mr. Lipsit was doubtful about the peach trade under reciprocity because of the amount of production in the United States. In other fruits, however, there might be some advantages gained.

Mr. William Mitchell, reeve of Grimsby, manager of the United Empire Bank, and a fruit-grower, said that if the Government went to the country on reciprocity there would not be enough of it returned to power to move and second the address from the Throne. Mr. Mitchell was opposed to the agreement in every particular, because he didn't think the Americans needed Canadian produce. The fruit men have worked hard to build up a western market, and they don't want it broken down."

Mr. James Marlowe, at Grimsby Park, said that he was not losing sleep over reciprocity. "Since I have viewed the agreement in a more mature way, I can't see where it will hurt us," said Mr. Marlowe. "It may be just like the San Jose scale that struck us five years ago.

We all thought we were going to be ruined beyond recovery, and it proved to be a blessing in disguise, because we learned how to spray and grow the best fruit in the world after that. Reciprocity may help us the same way." Mr. Marlowe said he shipped five cars of red cherries to the United States last year and in face of the duty realized better prices than he could have obtained here. "I look on the competition in peaches in the United States in this way. Our Crawford, no matter how late they are in the season, or how many cheaper early varieties have gone before them, always bring the highest prices of the year. Why shouldn't our best fruits find the same

level on the American market and in Canada, too, as they do now, despite the fact that much early fruit might flood the markets in the first of the season?" asked Mr. Marlowe. "I think the man who can't make money in this district ought to go over to the United States."

Dr. A. W. Brownlee said that he was not worrying much over reciprocity. "It would be better for the fruit-grower here if he could grow the late Crawford and St. John peaches altogether, and do away with the early varieties." Dr. Brownlee thought that more harm might have been done by the howl that had already been raised from the fruit growers than by the reciprocity agreement itself.

SPRING REPORTS.

78 colonies in November; 74 colonies in January; 59 colonies in May; wintered outdoors in a sheltered place without packing; very little brood at any time during spring. Two thirds of colonies are weak. Consumed an unusual amount of stores. Some dysentery. Queens seem to have laid very little until the last week. Colonies gradually dwindled. Very changeable weather since January. Forest, Ont. Thomas Martin.

[Permit us to say that the above is a fair sample of what happens when bees are wintered outside without packing.—Ed.]

The past winter in Victoria was mild; very little frost or snow. February, March and April were exceptionally fine. Only one wet day during the three months. My own and some other bees have wintered well. It was fortunate that the spring to the end of April was fine, as much of the honey gathered last year was candied in combs and water was in great demand by the bees, many to be seen in the grass in mornings before the sun had evaporated the moisture.

At Shawnigan Lake, where most of my bees are (28 miles from Victoria) we had considerable snow until quite late in March, but all my bees came through in fine shape. It rained on May 2nd, and has been over-cast, showery and cool ever since, scarcely a bee moving for the last eight days. The dandelion is closed up tight. Fortunately I have

all my feeders on, and these are the conditions of weather to shout Feed!!

Fruit bloom in abundance, but weather too cool. Clover looks well. Prospects good if weather improves. It is raining still.

Victoria

E. F. Robinson.

Put in 60 colonies, all having plenty of stores under normal conditions. Cellar ranged from 44 to 60 degrees, consequently too active, resulting in death of four from starvation. Five or six showed slight signs of dysentery. Put in November 5th, took out April 22nd--24 weeks. Ideal spring, but too windy. Prospects good.

Green Ridge.

"Manitoba."

Bees wintered good; put 107 in cellar, took out 103 in good shape, and they are in grand shape at present. I think the prospects are good for the clover is looking fine.

Macville

Alex. Goodfellow.

Bees in this locality have consumed heavily, and are in a somewhat weakened condition. My loss out of 193 colonies, is four to date: two queenless, the other two died of starvation. Many who wintered on summer stands without protection have lost heavily—some all they had. Clover promises well, if bees are in shape to take advantage of it when it comes.

Smithville, Ont.

Lewis Minor.

Bees come out of the cellar this last spring in good condition. Wintered 75 out of 75, and all are strong, and have been working on popular buds from May 1st to 5th. as weather was fine and no



Apiculture Short C

frost. If weather ren should be in good con blossoms and white clo Alfred Centre. Jo

Bees have wintered sp outdoor stands—never the winter was long a came through without t of dysentery, and nearly for suppers for fruit blo Oshawa.

Bees wintered in fair out of thirty-five, but very weak, especially very cold weather whic in a few of the weaker c rest building up pretty first seen bringing in poll Bees set out of cellar April 10th; set out for Fair prospects for clover about wintered outside h of starvation.

North Bruce.

H.

60% of Bees in Conn

My bees (33 colonies) in an upground reposit packed walls, from neces choice, and temperature v too variable. I lost ni from dysentery. The re present time in fair shap is rather backward. Pros crop are fair. The "Cana with every issue. Mossley.

May-June, 1911

an market and in Can-
now, despite the fact
fruit might flood the
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I think the man who
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Apiculture Short Course, O.A.C.—Taking Winter Packing off the Hives.

frost. If weather remains warm they
should be in good condition for apple
blossoms and white clover.

Alfred Centre. John E. Browning.

Bees have wintered splendidly on their
outdoor stands—never better, although
the winter was long and cold. They
came through without the slightest sign
of dysentery, and nearly all will be ready
for supers for fruit bloom.

Oshawa. W. H. Kirby

Bees wintered in fair shape, two died
out of thirty-five, but three others are
very weak, especially since this last
very cold weather which chilled brood
in a few of the weaker colonies. All the
rest building up pretty well now. Bees
first seen bringing in pollen of April 25th.
Bees set out of cellar for a flight on
April 10th; set out for good April 21st.
Fair prospects for clover here. Some bees
about wintered outside have recently died
of starvation.

North Bruce. H. D. McCulloch.

60% of Bees in Community Dead

My bees (33 colonies) were wintered
in an upground repository with sawdust
packed walls, from necessity rather than
choice, and temperature was too low and
too variable. I lost nine colonies, all
from dysentery. The remainder at the
present time in fair shape, but weather
is rather backward. Prospects for honey
crop are fair. The "Canadian" improves
with every issue.

Mossley. Warren Sadler.

Home yard—86—3 dead; 10 weak; 73
strong. 1910—96—1 dead; 95 strong.

Fall wheat and red clover killed in
spots, good in low places and near fences.
Alsike not quite so bad.

South yard—3 dead; one weak; 25
strong.

Next yard—19 alive; two starved.

South yard—Section fall wheat most-
ly killed, also around west yard.

Victoria Co. R. F. Whiteside.

Bees have wintered excellently in this
locality, only four per cent. loss. Brood
raising was late in starting, about April
12th. At present they have about five
square feet of comb filled with brood.
Plums and early cherries are in full
bloom. Prospects favorable.

West Lorne. Geo. E. Hill.

Bees wintered only midling. I hear of
quite a lot of spring dwindling. I lost
12 out of 87 colonies, and attribute the
cause to worn out queens. Weather cold
and backward. The 75 colonies I have
left are doing nobly. I wrapped hives
in tar paper. The remaining queens are
of last year's rearing, and I am now look-
ing for good results, as I have plenty of
stores. Brooding is going on real fast.

Wallbridge. C. F. Chisholm.

As far as I have heard, bees have
wintered well in this district, but hard-
ly a day that bees could fly freely until
last week, when they got six ideal days,
but weather cold again this week with
heavy frosts at night.

Simcoe. A. Laing.

THE LIBRARY, UNIVERSITY OF MONTREAL

Bees came out in good condition, every colony alive, both indoors and outside. Very few weak colonies. Prospects fair. Wesley, Ont. Geo. Wood.

Bees wintered through fairly well, but our 40 acres of alsike and 11 of Mammoth clover is all killed, so we have a poor outlook for clover honey.

Enfield.

A. Smith.

I have lost just eight hives out of 80. Twenty wintered in chaff hives outside: One dead. Sixty kept in cellar—four died and three died after being set out. Have been feeding a few light ones, and all are working quite strong and should be in good order for the harvest.

Peterboro.

W. B. Anderson.

Bees come through in good condition; wintered outdoors; packed in leaves from the woods. One tenth lost, partly through my own fault. Three died from starvation, the balance had no queens. Clovers are looking good. We can expect an average crop of honey.

Culloden.

A. Berdon.

Took the bees out of cellar the 22nd of April in good condition; loss three per cent. Prospects are bright for a good crop this year. Clover looks well. It would be a nice attraction to have Mr. Morley Pettit, our Provincial Apiarist, at the Central Fair, Ottawa, with his extracting apparatus with gasoline power, so that the Eastern bee-keepers will have the benefit of his work.

Glen Sandfield.

A. Blais.

I put 36 swarms in the cellar in the fall, and after setting them out on the 10th of April found one queenless. I have since transferred them all into clean hives and equalized the stores, and have left them in excellent shape. Never had them better for a good honey flow. They have been very busy bringing in pollen lately, and now that the dandelion and wild plum is blooming they are exceedingly busy. I think the clover in this district wintered well, and I expect a good yield of nectar from it.

Hollin.

Miss Hannah Willson.

The April number of the Journal came to hand this evening, full as usual, of good news. In regard to the wintering of our bees, I am pleased to be able to report great success. Out of 74 colonies put away last fall 71 came out practically as strong as when they entered the cellar. I am sure this was entirely due to the even temperature of about 39 de-

grees which the cellar maintained, nor did we do any artificial heating. One thing I would like to mention is that for an entire week previous to setting them out water lay on the floor over a foot deep. There was no drain to the cellar and the spring soakage following the bed rock under the cellar, made a regular reservoir under the bees. One would have expected dire results in such a case, and I certainly did, but the good fresh air passing constantly through the cellar apparently kept the bees perfectly contented. The only objection I had to the water was the terribly cold feet I got wading for half a day in it. Of course another year a drain will be provided to carry off this surface water which seems to go through the sandy soil as it would through a sieve. I have gotten out a spring casing for eight frame Langeworth hives in place of three 2 x 24" stands. This casing is in four pieces and hinged, in fact acts much the same as a section would when folded up in a square. It leaves a space about 3" right around hive and stand to be filled with sawdust. The only other piece of consequence is a flat wooden cover over all. I put these on every hive this spring and packed them. I am sure with the necessary articles ready it does not take ten minutes to case a hive. I wish I could take a photo of the same for your better information. When not in use the casings lie out straight, to use the same simile again as sections in the flat. Honestly, they look so good to me I would like to enquire into how a patent is obtained. Perhaps you could let me have a little advice in this line. The frame of the case is wood with a roofing paper covering to hold up the sawdust.

[It will be necessary to apply to a lawyer who makes a specialty of patent business.—Editor].

This spring is certainly going to prove their usefulness, for during the past week between about the 20th and 30th of April, the weather was very warm, always above 60 degrees in the shade during the day, and of course great for bees in general. Queens laid fast (for I went through every hive) and no doubt taxed the bees to their covering capacity. Now, May 3rd comes, the coldest day and night remembered in this country for some years, and hives unprotected from the keen wind and frost must certainly have suffered from chilled brood, or are doing so.

Quebec.

H. H. Selwyn.

Last fall I packed 1 and wintered outdoors cellars. I lost one or seven out of the 90, queenless and will have another having a good

Some of the writers Bee Journal seem to b selves about getting the pings. My plan is to in the honey that com by putting in shallow. If carefully done this w honey in the least.

Of course this heati thickens it a little, but proved. After it has c the barrel with the re my honey as I take it tor through a fine wire stand in barrels a few ting in cans. By doing a very thin scum of cap each barrell. As for quality of this honey, p tario who buy it, pronc they have ever had, an couver say they cannot l equal to it.

Sunbury.

Regarding the winterir locality, would say the very good. I lost a few stores and two or three in bees. The honey pro good at present. Nev through in good shape. honey plant. Fruit blc ing on in fine shape. P nectar has been coming weeks, and all colonies fine.

Oxford Co.

Bees came through tl nice. Have 66 colonies of 70. Honey is coming bees are building up fas that clover bloom is know that spring was ward.

Popular.

I put 23 colonies in th vember 29th. They wer better fed than any I ha before. I had given ove sugar to the colony. J April 13th. Found many of stores; ten dead. H left. It was the first ti wintering without fire in Meadowvale.

M.

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H. H. Selwyn.

Last fall I packed 13 colonies in chaff and wintered outdoors and placed 90 in cellars. I lost one out of the 13 and seven out of the 90, two others are queenless and will have to be united with another having a good queen.

Some of the writers to the Canadian Bee Journal seem to be troubling themselves about getting the honey from cappings. My plan is to melt the capping in the honey that comes off with them, by putting in shallow pans in an oven. If carefully done this will not injure the honey in the least.

Of course this heating of the honey thickens it a little, but the flavor is improved. After it has cooled I put it in the barrel with the rest. I strain all my honey as I take it from the extractor through a fine wire sieve, then let it stand in barrels a few days before putting in cans. By doing this there is only a very thin scum of cappings to skim off each barrel. As for the flavor and quality of this honey, people here in Ontario who buy it, pronounce it the best they have ever had, and people in Vancouver say they cannot buy any out there equal to it.

Sunbury.

George E. Webb.

Regarding the wintering of bees in this locality, would say they have wintered very good. I lost a few through lack of stores and two or three were rather weak in bees. The honey prospects look very good at present. New clover came through in good shape. It is our main honey plant. Fruit blossoms are coming on in fine shape. Pollen and a little nectar has been coming in two or three weeks, and all colonies are building up fine.

Oxford Co.

R. E. Adamson.

Bees came through the winter fairly nice. Have 66 colonies to the good out of 70. Honey is coming in nicely and bees are building up fast. By the time that clover bloom is on we won't know that spring was cold and backward.

Popular.

Wm. Robinson.

I put 23 colonies in the cellar on November 29th. They were stronger and better fed than any I had ever wintered before. I had given over 20 pounds of sugar to the colony. Took them out April 13th. Found many of them short of stores; ten dead. Have 18 colonies left. It was the first time I had tried wintering without fire in the house.

Meadowvale.

M. B. Trevorrow.

We put 145 colonies in repository above ground—too warm all winter—45 to 50 degrees, sometimes 60 degrees. Put out April 11th. Had 140 colonies—Four queenless, one starved, two weak ones, robbed since; 136 colonies now in fair condition. Prospects not very good here. Clover badly killed out (Red Clover and Alfalfa especially). However am in hopes White and Alsike will come on fairly well. Am building a cellar under-ground. hope to winter better.

Woodrows, Ont.

R. Lowey.

Bees have wintered finely, and in spite of the cold are breeding up splendidly. Clover is in excellent condition and every thing looks favorable for a good crop of honey in 1911.

Birmingham, Ohio.

J. E. Hand.

Put away in St. George yard 175; took out in spring 100. Home yard, fall 17; spring 17.

Paris.

Alex. Taylor.

Bees wintered well. Fall count 64; spring count 62.

Cainsville.

Jas. H. Shaver.

I may say bees have wintered well. They were fed part sugar and part honey. My loss was about 5 out 100. The outlook for the honey crop is fairly good as the clover was not wintered killed.

Alexandria.

Fred St. John.

As you have kindly asked the subscribers of your valuable journal to contribute some information as to the present condition of their bees, I will give my little experience and prospects for the present season. I wintered in the cellar. Put in 130 colonies, and only lost one, and I never saw them so well advanced at this time of the year. Brood in several of them on the outside combs and no lack of honey. Any amount of dandelions in this locality. Ontario is a great field for the honey business, if properly carried on. Room for fifty times the amount produced at present. There is a rapidly growing demand in Ontario for honey at good prices, and in Western Canada where they cannot produce at a profit, it is Ontario's best market. I have shipped honey to the Northwest, as we call it for the past sixteen years. It was slow sale at first; then prices were not nearly so high as now. Last year I could have sold all my crop at home. I did not write to any one in the west as my stock wasn't large. After a little I got orders amounting to about four tons. A friend, who was a good man in the

business went in with me and we filled most of the orders, and got every dollar of our money. I had an order from a British Columbia customer; he said their honey was not nearly as good as the Ontario honey. Dandelion or apple bloom honey is not saleable. When the bees have a good start on the clover, all the surplus combs must be extracted. One hundred pounds of dandelion or apple bloom honey would spoil a ton of good honey. I have orders now for over four tons at good prices. Let us all put up a good article. Wishing you and the C. B. J. every success.

Kerwood.

R. Galbraith.

Every one of my colonies wintered and they have the most bees in them that I ever saw at this date. Prospects for honey fair if we get rains in time.

Woodburn.

Wm. McEvoy.

Never had bees winter better. All came through in good shape, excepting one being queenless. Building up very fast.

Salem.

David Scott.

My bees wintered well. All came out alive; just one colony queenless. As far as I see the prospects are bright for the coming season.

Scotch Line.

Richard S. Allan.

Bees came through winter in good shape. Lost three out 93; doubled up till there are now 75. Very cold and windy yet, but prospects are good. Bees gathering pollen very actively. Had some robbing at first, but now all is O. K., although they are 21 days later than last year.

A. Buckindale.

Mr. William T. Davis, of Stratford reports that 56 colonies were put away last fall. He now has 49 in good condition and doing well. Owing to a severe attack of rheumatism, Mr. Davis has been unable to be about for some time. He states that Mr. Morley Pettit has given him kindly assistance this spring in fitting up. He reports his condition much improved and expects to be able to take charge of his bees from now forward. We trust he may realize his hopes.—Ed.

Bees in this locality came through the winter splendidly and have done good work on fruit blooms, dandelions and other bloom. No bee disease ever here. One man lost two-thirds through his own fault.

Comber, Ont.

Daniel Stuart.

My two colonies wintered well outside, protected in case of sawdust with roof. I am beginning, so will run for increase. Prospects right here are good, as we grow clover for cover crops in orchard. Have used alsike considerably for benefit of bees. A good proportion of 60 acres of orchard is in clover every year. Also three acres raspberries, 5 acres strawberries. With wild flowers, we have an unbroken honey yield throughout year. Bees start on willow in February and clover starting in May continues till October, irrigated of course.

J. C. Campbell.

Willow Point, Nelson, B.C.

Bees came out of winter quarters in good shape. The cold spring was against them, and I think 5% will about cover the loss for most bee-keepers. The good weather of the last two weeks is helping them along. A good deal of the clover has been killed in some sections, but if we get favorable weather, we may get a crop.

Lindsay.

James Storer.

Just a few bee items. I lost six colonies in wintering. Five weak nuclei from neglect of feeding. Others all living and mostly fairly strong. Weighed 59 colonies in and out of cellar. Greatest consumption of stores in one colony 33 lbs.; least two pounds; average 11 25 lbs. Have been feeding quite a number of colonies. Am now doing a little outdoor feeding with a large proportion of water, with apparently good and no injurious results. Let all bee-keepers prepare for a good honey flow.

Bewdley.

J. Sackville, Sr.

I wintered 11 hives O. K. This was the number I had last fall, but I lost one hive last week. It was apparently O.K. a few days ago when I put in two frames of brood comb, but yesterday I saw an oily substance on the bottom board, and when I opened the hive it was in bad shape, nearly all the bees dead and what were left had very little life, so I closed it up tight and carried it out of the yard. The rest are O.K. so far. Can you give me any advice in case the others get it? If you could answer by post. It would greatly oblige me, if not asking too much.

[Can any one tell what the trouble is in this case? We think there was not enough bees to cover the brood and keep up the proper temperature. We do not think there is anything in the oily substance to fear.—Ed.]

Enderby, B. C.

J. C. Lucas.

May-June, 1911

As you want every you a report of bees tell you that I have starving and the other first-class.

Montcerf.

Bees have in son through without loss. three out of four. I outside of Glencoe. has come through in Glencoe.

My apiary is only tered on summer sta maple leaves. All can shape. Prospects, good Orillia.

Carnic

Queen select, tested, September, October, \$2.00. Virgin Queen, tested queen, \$5.00; July, August, \$5.00; German, Standard—Select, tested queen—May, June, \$9.00; A

By orders amount \$75.00 upwards, two

Safe arrival of money order with ev age free—queens and of hives. Eventual hours after arrival i times than the month conditions make it p

Write for the be ing financial and cor be had at every Imp States of America.

Special contracts

Imperial-Res

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Nelson, B.C.

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C. J. C. Lucas.

As you want every bee-keeper to give you a report of bees this spring, I must tell you that I have 10% dead, 3% by starving and the other 7% queenless; 80% first-class.

Montcerf. Jos. Martineau.
Bees have in some instances come through without loss. My own loss was three out of four. I have not acquired outside of Glencoe. The white clover has come through in good condition.

Glencoe. Alex. McLellan.
My apiary is only a small one. Wintered on summer stands; packed with maple leaves. All came through in good shape. Prospects, good.
Orillia. Bruce Murphy.

In this locality bees have wintered well. There were a few losses from dysentery, caused by exceptionally cold winter. The season is two weeks late compared to last year. Conditions to date point to another very good honey season.

Bedford, Que. Harry W. Jones.

Bees wintered fairly well in this section. Clover well taken and is not winter killed, and with a few showers at intervals a good honey crop would be assured.

Quebec. W. A. Oswald.

[A few reports are crowded out, but will appear in next issue.]

Carniolan Gray-Banded Alpine Bees

Queen select, tested, March, April, May, \$5.00; June, July, \$3.50; August, September, October, \$3.00. **Queen, select, untested**, June, July, August, \$2.00. **Virgin Queen, select**, June, July August, \$1.50. **Nucleus**, with select, tested queen, and one pound of bees, March, April, May, \$6.00; June, \$5.00; July, August, September, October, \$4.50. **Mobil Hive**—10 half frames of German, Standard size, March, April, May, \$9.00. **Carniolan Original Hive**—Select, tested queen, brood, honey; will produce 2 to 3 swarms, March, April, May, June, \$9.00; August, September, October, \$8.00.

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Safe arrival of queens, nuclei and hives guaranteed. International postal money order with every order. Give correct and plain address. Mailed postage free—queens and nuclei; postage or freight paid by receiver for shipments of hives. Eventual dead queens or dead stock replaced, if returned in 24 hours after arrival in a postpaid package. Orders, to be effected at other times than the months above stated, will be filled, provided weather and other conditions make it possible.

Write for the booklet: "The Carniolan Alpine Bee." References respecting financial and commercial responsibility of the undersigned association can be had at every Imperial and Royal Austro-Hungarian consulate in the United States of America.

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Imperial-Royal Agricultural Association

Ljubljana, Carniola (Krain) Austria

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Want and Exchange Column

Advertisements for this column will be received at the rate of 50 cents for 25 words, each additional word one cent. Payments strictly in advance, as the amounts are too small to permit of book-keeping. Write copy of ad. on a separate sheet from any other matter, and on one side of the paper only. Say plainly how many times ad. is to be inserted. Matter must reach us not later than the 23rd of each month.

SITUATION WANTED—By a young man who has successfully passed examination after taking course of lectures and practical work in Apiculture at the Ontario Agricultural College. Anyone desiring help of this kind for the season of 1911, kindly correspond with Morley Pettit, Provincial Apiarist, Ontario Agricultural College, Guelph, Canada.

WANTED—Bees — Will those having bees for sale this spring, or those who know of any for sale, please communicate with Drawer A, Canadian Bee Journal, Brantford, Canada.

FOR SALE—About 40 colonies of bees, Langstroth eight-frame—all new combs. All fittings and supplies to go with them. D. McFarlane, Tillsonburg, Ont.

LEATHER COLOR ITALIAN QUEEN BEES FOR SALE—Why not try one or more of Fuller's queens this year. No foul brood. Have had bees 29 years and have never had a case. Circular free. Untested queens, \$1.00 each. O. F. Fuller, Blackstone, Mass., U.S.A.

HONEY WANTED—I want all your first-class honey. Let us arrange now and I can send you tins. I cannot handle to as good advantage late in the fall. G. A. Deadman, Brussels, Ont.

QUEENS FOR SALE

ITALIAN QUEENS from my Jamaica, B.W.I., yard, mailed any month in the year after May 1st from my Yonkers yard, untested 75c., tested \$1.50; breeders, \$3.00; Carniolan, Cyprian, Caucasian and Banats, 25c. extra. Honey packages and supplies. W. C. Morris, Yonkers, N.Y., U.S.A.

J. E. HAND

The Veteran Queen-Specialist

Will begin the season of 1911 with greatly improved facilities for rearing the choicest queens. Our queens are not only large, vigorous, handsome, and prolific, but by reason of a judicious system of line breeding they have the power to transmit inherent tendencies of a highly desirable nature, such as hardiness, gentleness and industry, as well as uniformity of marking, which makes them especially valuable as breeders. Every queen is warranted to produce uniformly marked bees of superior honey-gathering qualities. Don't take chances. Get the real thing. Warranted, \$1.00; six, \$5.00; dozen, \$9.00. Tested, \$1.25. Breeders, \$5.00. Half pound of bees, no queen, \$1.00. Three (L) frame nucleus, no queen, \$3.25. No selection, therefore no culls, and a square deal for all. Valuable information free for your address.

J. E. Hand, Birmingham, Ohio.

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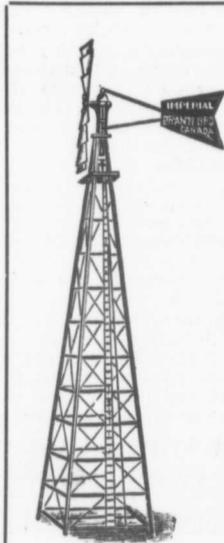
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