

The Canadian Bee Journal

Published Monthly

New Series
Vol. 12, No. 4

BRANTFORD, CAN., NOV., 1904

Whole No
477

BACTERIA

By Prof. R. M. Bundy,
Cleveland, Ohio.

Many times during the period that I have been engaged in microscopical and bacteriological work, I have felt that some little explanation, in a simple way, regarding bacteria and the many terms pertaining to them might be appreciated by at least a few interested readers.

The knowledge of germ life that is possessed by the majority of the people is the result of reading the newspapers. To those having made some study of the subject from reputable works, many of the newspaper items appear rather absurd, and are truly misleading. With the many important improvements that have been made during the last few years upon the microscope, the science of bacteriology has advanced very rapidly, and is developing much information that will add to the betterment of many conditions in our everyday life.

Bacteria is the name given to a class of vegetable organisms that exist everywhere and in countless numbers. Because of their minute size they are called micro-organisms, being discernable only by aid of the highest

powers of the microscope, in most instances.

The more common word "germ," meaning embryo, has come into general use because of certain forms of bacteria being the origin of disease. Bacteria are simply a class of low plants. They are the active principle in many of nature's processes and are as necessary to our life as the blood in our veins. They are the cause of putrefaction or decay of all animal and vegetable substances. They enrich the soil by a process of nitrification in a way that cannot be done by artificial means. They are the curing agents of the farmer's hay in the mow, as well as his fodder in the silo. In the dairy they are of great importance, the souring of milk being caused by the action of bacteria, converting the sugar of the milk into lactic acid. The ripening of cream and its changes into butter, and the ripening of cheese are the direct results of bacteria growth. It is to their powers of producing chemical changes during their growth that they owe their importance in the world.

Bacteria are more universally prevalent in nature than any other forms of plants or the animals. They are in the air, water and soil. They also cling in vast numbers to almost every object on the earth including man and the lower animals. They do not, how-

ever, occur normally in the healthy tissues of man nor animals. Under favorable conditions bacteria grow and multiply with enormous rapidity. A single bacterium in contact with a nutritious substance, like beef gelatin will produce over fifteen million of its kind in twenty-four hours. When thus surrounded by an ample food supply of the proper kind they increase or multiply by what is known as fission or simple dividing. Each individual upon reaching a certain stage in its growth will divide in the middle into two similar halves, each of which immediately starts to grow and repeat the process. Some species have been carefully watched under the microscope during their development and have been found to divide as often as every half hour and in some cases in still less time. Notwithstanding the hundreds of different species of bacteria there are only three general forms—spheres, rods and spirals. Some of the spheres are large and some small, while the rods may be long or short, thick or slender, with either rounded or flat ends and the spirals may be loosely or tightly coiled. To illustrate we might say the three forms resemble marbles, pieces of slate pencils and coiled wire springs. In size the spheres vary from twelve one-millionths to six one hundred thousandths of an inch in diameter, while the rods and spirals vary in diameter from fifteen millionths to one ten thousandth of an inch, and in length from one but little more than their diameter to threads as long as one hundredth of an inch. Bacteria are usually given a generic name, based upon their appearance under the microscope and their method of dividing during growth. Some of the more common names are micrococcus, streptococcus, staphylococcus and sarcina, all of which are given to the spherical forms. The rod forms are

all given the generic name of Bacillus and to this is usually added a specific name based upon some physiological character as bacillus typhus—those causing typhoid fever. And in much the same way the spiral forms have come to be designated as spirillum—spirillum dentinum being a form which occur in the so-called fur of the teeth. Many species of bacteria have another method of reproduction besides simple division of fission. It is by means of spores, which are usually round or oval particles of substance called bacteria protoplasm. These spores or protoplasmic particles are capable of resisting conditions of heat, cold or starvation that would destroy the ordinary bacteria.

There are among bacteria two different methods of spore formation—endogenous and arthrogeous. The endogenous spores are developed inside of the rod and spiral forms of bacteria itself. They usually break out of the rods and may remain inert for a long period of time or until they come in contact with proper food materials and conditions for development when they start to grow and multiply in the ordinary way. It is to this class of bacteria that the Bacillus milli of "Black Brood" belongs. Arthrogeous spores are formed by breaking up of a long rod into short segments or sections. This form will not resist adverse conditions as well as the endogenous and some authorities claim they are not true spores but are simply resting cells. Whatever the method of forming the spores, its purpose in the life of the bacterium is that of insuring a perpetuation of the species, through its increased powers of resistance. Some species of bacteria possess the power of motion to and fro in the media in which they are growing. This motion is produced by hair-like appendages, one or more in number, which protrude from the

ends or sides of the bacterium and are called flagella. It is believed that the flagella are developed from a protoplasmic film surrounding the bacterium their distribution being different in the different forms of bacteria.

Regarding the internal structure of bacteria little is known other than that they are of very simple make-up.

Of the many hundred of different species of bacteria there are but a comparatively few that are harmful to mankind. Of this class which are the cause of disease, the largest number are bacillus, and are called pathogenic, while the harmless ones are called non-pathogenic. The pathogenic species are of two classes, those which are true parasites and those which are not. By true parasites we mean those which live upon and consume the tissues of the body in their growth during which time they produce poisonous substances that may prove fatal when of sufficient quantity. Under this class may be cited the bacillus tuberculosis as a representative. The class of pathogenic bacteria which are not true parasites include those capable of living free in nature and though they develop the poisonous products during their growth in organic substances, it does no harm unless taken into the human system with the food. The poisons produced thus free in nature, ultimately become oxidized into harmless substances by their further decomposition. It will be seen therefore that only during the period between the forming of the poisons and their oxidation are they harmful. In contracting disease by inoculation with these pathogenic bacteria or germs much depends upon the physiological condition of the body at the time. If in a thoroughly vigorous state of health the tissues will be built up and the poisons eliminated before the bacteria can multiply in sufficient numbers to break down or weaken these

natural forces. As before noted there are but few harmful varieties compared to the whole, and it is safe to say, that of every hundred different species of bacteria as they exist at least 95 are in some way beneficial to us. In preventing the growth of bacteria there is usually employed one or two forms of substances existing under three names—antiseptics, disinfectants and germicides. Antiseptics are those substances which only retard the growth of bacteria, while disinfectants are substances which actually destroy the cause of infection and are equivalent to germicides, which kill the germs. Disinfectants are usually antiseptics if used in a proper way, but the latter are not in many cases disinfectants. There is another class of chemical substances, usually strong oxidizing agents, which will convert the strongly smelling products of bacterial decomposition into inodorous ones. These are called deodorizers and may, or may not be disinfectants. It is useless to attempt to disinfect the air except in tightly closed rooms and even then to be effective, it requires a quantity or strength of disinfectants in which it would be impossible for a person to live. Most of the so-called disinfectants in the market, when diffused through the air of an ordinary room have no action upon putrefactive bacteria.

"American Bee-Keeper."

SOFT HONEY CAKE.

One cup butter, two cups honey, two eggs, one cup sour milk, two teaspoonfuls soda, one teaspoonful ginger, one teaspoonful cinnamon, four cups flour.

"Success," one of the best all-round family magazines published in America, Success Co., New York, \$1.00 per annum. We club it with The Canadian Bee Journal for \$1.75. To new subscribers both magazines one year for \$1.30.

MY APIARY IN WINTER

BY W. H. KIRBY.

I send you by same mail as this a photo of the eastern end of my apiary, taken and finished by myself, on the 3rd of May last, showing the hives packed just as they came so successfully through the winter. With a view to lesson labor they are kept in

tions, each cleated on the under side at both ends, and joints battened on top, as can be seen by photo; the roof boards are four feet long. Whenever I want to work at a hive I tip a section of the roof over on the adjoining section, and work at the hive from the rear. One by twelve inch boards, twelve feet long, cut up without any waste in making the sheds. They are simply sound rough lumber, and are very durable without any paint. I have nine of them, the first being made



Apiary of W. H. Kirby, Oshawa, Showing System of Wintering.

these sheds all the year around; the sheds are twelve feet long, three feet high in front, two feet high behind, and three feet wide, the board supporting the sectional roof in front is twelve inches wide; two by two inch stuff, will do for corner posts; the floor is supported on two by four inch scantling, laid on edge lengthwise. the shed, and on this floor is laid, two by two inch stuff on which the hives rest, thus allowing space for two inch packing under the hives. The roof of each shed is in four sec-

about twenty years ago, and is as good now as when first made.

For packing between, under and rear of hives I use maple leaves, gathered just after they drop, they being much tougher than after they are off the trees for a while, and last longer. They are packed in under, between, and at back of the hives, just as close and tight as I can punch them, right to the top of the covers. As can be seen by photo I use a deep cover for wintering, under which is placed and on the top of the frame, a chaff

box made of stuff from the saw, one-half inch thick, by four wide, with a burlap bottom tacked on all around, these are made to fit squarely and true on the top of the hive body, and filled with wheat chaff, a couple of small sticks being placed across the rear end for a bee passage, before the chaff box is put on. For out-door wintering in this way a deep cover is a necessity, for reasons I may give another time. I use two sizes of frames, the Langstroth and a frame one inch deeper, eight to the hive, and would sooner use a hive a foot deep than to use one with nine or ten frames. When I want to examine a colony, or put on surplus boxes in the spring, the packing is taken out as far down as the ledges that support the cover, and placed in the little building to the rear, to be used another fall and winter. The rest is left around the hives all the year. In winter, entrances are closed to two or three inches. Immediately in front of each hive is the number on the shed board made by a brass stencil plate. The board lying on the ground in front of each shed is turned up in front just high enough to keep the sun from shining to within an inch from the entrance. This gives the sun a chance to warm up the ends, and melt the ice that forms on the ends during the nights and on cold cloudy days. The hives being lower in the front, the water runs out the entrance. Any suitable day in the winter when it will thaw in the shade, these boards are lowered so that the bees can fly out; sometimes the south or front side of these sheds gets so warmed up that it is necessary to shade them to darkness to keep the bees from flying out and perishing.

I have been wintering in this manner all the years I have kept bees, and consider it perfect. I omitted to state that the covers are clamped on to prevent the leaves from raising

them. I generally packed up about freezing-up time. Two years ago I finished packing on the tenth of December at ten o'clock at night, and on looking at the thermometer when done, it was ten below zero. The bees wintered splendidly
Oshawa, Ont., Oct. 24, 1904.

GETTING BEES OFF THE COMBS WITHOUT BRUSHING OR WITHOUT ESCAPES.

I presume that nearly all bee-keepers know that if there is a time when bees are vicious and dead bent on stinging, it is late in the autumn when there is little or no honey coming in, and to attempt to take the combs from the hive and brush them at one time is a task that takes considerable nerve. To avoid this I have an assistant to use the smoker, go to a hive, give a few puffs at the entrance, pry off the upper story place it on the wheel barrow, remove the excluder and put on the cover, this has all been done so quick that the robbers have not discovered which hive you have been working on. Have an assistant keep a watch on the honey on the wheelbarrow and smoke away any robbers that may attempt to pilfer. When the barrow is loaded wheel it into the honey-house, and stack the hives up near a screen door having an escape. It would be better if the door had several escapes; let each body extend a little over the end of the one beneath it, so that the bees may escape without going clear up to the top. In this way you can pile them up six or seven high, and almost as close as the hives will stand. The bees will collect on the screen faster than they can escape, and when quite a number have collected on it, push the screen door partly ajar, and strike it on the inside with the hand, this will dislodge nearly every one. Be quick about it and close the door before many robbers can enter, for they are sure to be looking for a chance to enter.—Progressive Bee-Keeper.

Hints for Beginners

R. F. HOLTERMANN

The Hive and Its Brood Chamber.

Only those who have had long experience in writing, addressing and instructing others, can realize the necessity for careful detail in giving directions. In our haste we are inclined to over-estimate the knowledge of those we address, and to omit or overlook many minor but essential points which we wrongly suppose they are in possession of. Again, it is often quite out of question to cover a subject in a certain limited space of time, and yet touch all the details.

Giving instruction as to the weight of a hive in winter can hardly be done in a word. A colony is the better for 30 pounds of winter stores, what they do not require in winter, they will require in spring. After pointing out the difference in the weight of combs, it will readily be seen that the only way is to make ample allowance for the difference in weight. After careful weighing I find that a new Langstroth comb, wired and built on comb foundation, weighs 12 ounces. When age and use in the brood chamber has left many layers of cocoons, combs will run 24 ounces readily, and combs which have been in the brood chamber of a queenless colony, clogged more or less with pollen, will exceed two pounds. In the hive I use, 12 frame Langstroth, this can make a difference between new and old combs of nine lbs., or if pollen clogged of even 15 lbs., without there being any difference in the amount of honey in the hive. To one figuring closely this is quite

a serious item, and unless guarded against, may result in the starvation of the colony.

Again, especially when division has taken place by swarming, and colonies are very uneven in strength, one hive may be crowded with bees from side to side, and in another the bees may only cover a few combs. The weight of bees in such cases makes a difference. If in the one case there is two pounds of bees and in the other six pounds, the stronger colony, with an equal weight of hive, has four lbs. less of honey. A weaker colony will, in proportion to the number of bees, consume more stores, and instead of being discriminated against, it should have at least five lbs. more of honey. It requires more in the winter, and more in the spring. This makes a great difference; but there is another factor; if one hive has pitchy and knotty lumber, and another clear lumber in its construction, there may easily be a difference of several lbs. in the weight. I do not want these knotty and pitchy boards in my hives, but some do have them, and must make due allowance, or make all weigh more to cover the risk. After all, the only really safe way is to examine each brood chamber, and treat each stock individually, or make each stock weigh enough, to cover all the differences which may be in weight outside of the amount of honey the hive may contain.

Bee-keeping requires a certain amount of care and attention, and experience, just as any other department of the farm. The matter in hand is of very great importance, and yet is often indifferently attended to, and with correspondingly indifferent results in the winter and spring which follows.

In the work of my own apiary during the past month there has been much of it detail, first the supers and

The
Depar
making
Flower
of the
Columb
themse
Scotia
represe

queen excluders were removed, from the hives, then the covers were fastened down, and all brought home, some a distance of over forty miles, none less than thirty-five. This was done on hay racks. Next every hive was weighed, and each colony provided with an abundance of honey, and now we have about 400 colonies ready to place in winter quarters. In addition to about 360 colonies of our own to be wintered in the home cellar there will be about 300 colonies belonging to another bee-keeper.

This fall, a more thorough examination of brood chambers has been made by me than ever before, and I feel better satisfied and surer that conditions are right. With no culling out, I am, of course, wintering a few weak stocks, but wanting every colony, I run the risk of not being able to carry a few through to next year's honey flow. Many others may be similarly situated. A bee-keeper, who in the fall of the year can, or does cull out, almost ten per cent of his stocks, if he understands his business, and winters his bees under the best known conditions, should have practically no winter or spring losses. This summer I have had very few swarms, bees have held together and colonies are strong. At some future time, should I be spared, I may make the subject of an article "The advantages I see From the Non-Swarming System."

Brantford, Ont.

AT THE FRUIT SHOW.

The fruit division of the Dominion Department of Agriculture proposes making a special exhibit at the Fruit, Flower and Honey Show in Toronto of the various varieties of British Columbia fruit, packed by the growers themselves. The provinces of Nova Scotia and Quebec will be similarly represented.

Large Hives and no Swarming

"What do you think of the idea a neighbor advanced to me the other day?"

"How can I tell you until I know what that idea was?"

"I did not tell you, did I? Well, it was this—He said that' if I would use large hives, I would have large colonies when working for comb honey, with no swarming. If that is a fact, would it not be well for us to drop all our former notions regarding the contraction of the brood-nest, when working for comb honey, and give all colonies a great big hive, and so let the bees take care of themselves very largely?"

"You know, friend Jones, that I have been the advocate of a brood-chamber as small or smaller than nearly anyone else, when working for comb honey, the same holding only nine Gallup frames."

"Yes, I am familiar with this."

"Those nine Gallup frames give a capacity about the same as 63-4 Langstroth frames would; and from a brood-nest of that capacity I secure an average yield of 100 pounds of comb honey from each colony for eleven years in succession during the latter seventies and the earlier eighties—a record which has rarely if ever been excelled, covering that term of years."

"I believe that is right."

"Now, while that is so, I am free to confess that, without doubt, more labor is required in rightly managing such hives than is needed in the management of large hives. But with me it has always seemed that, from the extra amount of honey obtained, I always secured enough to pay fully for

the extra labor expended: and, if so, could the plea of letting the bees take care of themselves enter into the problem?"

"I had hardly thought of that,"

"The question, it seems to me, is, which will give the best returns for the amount of labor expended? and not how little labor is it possible to run an apiary with and secure any returns at all?"

"Then you do not think as good returns can be secured with the large hives with little labor?"

"That is right. But let us look a little into this matter of large hives giving large colonies, with no desire to swarm, and another claim put forth by some—that swarms from the large hives are so much larger than those from the small hives. I believe there is something overlooked here; for, with those nine-frame Gallup hives, I have had fully as little swarming as I have had with the ten-frame Langstroth hives, and the average of the swarms was not materially different, as to size in either case."

"I hardly see why that should be so."

"I am free to admit that were each placed side by side, with no sections on, the ten-frame L. hives would probably be later in swarming, and send out larger swarms; but no one working on the contraction plan treats his colonies in that way."

"He would be a strange bee-keeper if he did."

"Then we have that, with the small hive or brood-chamber, the sections are put on as soon as the honey-flow commences, and the brood-combs are manipulated till the whole are solid full of brood; and when in this shape, if any honey is stored, it must go into the sections, for there is no other place for it to go. Is this as you understand it?"

"Very nearly."

"Thus started early in the sections,

the bees become accustomed to their surroundings, and these fully occupied combs of brood entertain the best queen to her full capacity as to egg-laying; and, if we have made no mistake, how could a larger hive give any larger colonies? Large hives do not give large colonies beyond any hive which gives the queen room for her full capacity. Am I right here?"

"I can see no flaw in that assertion."

"If the queen has all the vacant cell room her prolificness requires, more room is only a damage to our crop of comb honey; for in the finding of too many vacant cells in the brood-chamber at the beginning of the honey harvest comes an "accustomment" to the brood-chamber for storing honey, instead of the sections; and thus the queen is crowded upon honey, instead of said honey going into the sections, and with restricted room for her eggs comes discontent, and from this discontent comes the desire, and from the desire comes swarming, the very thing that we are told we shall not have if we will only use large hives."

"I wish my neighbor could hear your argument. Perhaps he could give as good arguments on his side. I don't know enough. I can only say that it looks reasonable."

"Remember we are looking at the matter from a honey-comb standpoint, or honey in sections, not extracted honey."

"But you do have larger hives, do you not?"

"Yes. Some fifteen to seventeen years ago I was persuaded to buy of a farmer, living five miles from me, his bees, as he did not wish to keep them longer, and with the bees he gave me the privilege of allowing them to remain where they were for a few pounds of honey each year. These bees were in the ten-frame L. hives, and I have kept them in those hives

ever since, and at the same place, and thus I have had a chance to know about the workings of these hives as compared with the nine-frame Gallup hives of my home yard."

"How do they compare?"

"The result has been that I can by giving plenty of section room, hold these colonies at the outyard back from swarming about a week later, on an average, than when the nine-Gallup frames are used; but this out-apiary is no nearer being a non-swarming apiary than my home yard, and, in fact, I often consider them more determined to swarm than those are here; but the swarming comes a little later in the season."

"Do you consider this little later swarming of any benefit for comb-honey swarming?"

"This being held back a week in swarming has quite a bearing upon the problem of comb-honey production, from my present standpoint; for when the colonies are manged on the 'shook' plan of swarming, as given in the February 1st number of "Gleanings," of this year, this holding back puts them in just the right position to have the swarming done up so they can take advantage of the honey harvest when it comes, with the largest possible working force, with no desire to swarm after the manipulation."

"But all this requires work."

"Yes, some work; but no more work than we are well paid for. One thing I find, no matter what hive is used, or how many frames that hive contains, within the bounds of reason in securing a good crop of section honey, either way, toward large or small brood-chambers, a given amount of labor must be performed, so that the idea of letting the bees take care of themselves is nearly or quite a myth, if we expect to reap any great success from our bees. This no-labor part, and that of putting more colonies, into the field, has been harped on so much

of late, that it has become a sort of bugbear, and a desire seems to have sprung up for a 'holding of the pot to catch the porridge,' sort of apiculture, unworthy of the best attainments. 'In the sweat of thy face shalt thou eat bread' brings the highest joy that is attained in this life. Is it not to the one who has labored and toiled patiently, day after day, till at last the problem worked upon has been fully conquered and solves, that the greatest satisfaction comes?"—Conversation with Doolittle in "Gleanings in Bee Culture."

CAPPED HONEY NOT ALWAYS RIPENED.

In L'Apiculteur, a writer says that capped honey is not necessarily ripe, and relates an experience derived in his own apiary. His supers were being rapidly filled when suddenly, on June 4, the yield of nectar ceased, and some of the supers were not nearly completed and there was much unsealed honey. On June 16 the second flow of nectar commenced, and in order to avoid the mixing of the two harvests it was decided to extract all the honey from the first harvest. The uncapped honey was extracted first and then that capped, and care was taken to keep them apart in separate jars. The writer was astonished to find that the unsealed honey was some days sooner in granulating than that which was sealed, showing that it was riper. He explains it by saying that bees cap the honey-cells as soon as they are full, even if the honey is not always ripe. On the other hand, when a harvest ceases suddenly, the unfinished combs, although containing thoroughly ripened honey, remain uncapped. In his opinion, it is not correct to say that in order that honey should keep well all combs should be completely capped; it is preferable to make sure that it is ripened and evaporated to a proper density.—British Bee Journal.

THE CANADIAN BEE JOURNAL

Devoted to the Interests of Bee-keepers.

Published Monthly by

Goold, Shapley & Muir Co.
Limited

Brantford - - - Canada

Editor, W. J. Craig.

BRANTFORD, NOVEMBER, 1904

EDITORIAL NOTES.

Ho! for Toronto! We are looking for one of the largest and, we hope, one of the best meetings in the history of the Ontario Bee-keepers' Association.

The idea of the Show in connection with the conventions of the Fruit Growers, Horticulturists and Bee-keepers originated with the Department of Agriculture. The fruit-growers and horticulturists are enthusiastic, and are using every effort to make their branch of the Show a success. If the bee-keepers enter whole-heartedly into the affair, to make their department what it should be, it will not only be an advantage to those concerned and bee-keeping generally, but will be an encouragement to the Department of Agriculture to assist still further in developing the industry.

A number of Ontario bee-keepers are turning their attention towards Jamaica as a field for operation. Mr. Arthur Laing of Hamilton has already gone there, and has assumed the management of 500 colonies. Mr. R. H. Smith, St. Thomas, is going towards the end of the present month. In Mr. Smith's case, we are sorry to say, it is a matter of health rather than bee-keeping, his doctor having advised him to evade Canadian winters on account

of his eyes. Mr. Jacob Alpaugh of Galt, and some others, are purposing going to spy out the land at an early date.

We are in receipt of the following letter from Secretary Couse:

"Editor Canadian Bee Journal:

"Please announce to your readers, and the members of the Ontario Bee-keepers' Association, that the annual meeting of the association will be held in the Granite Rink, Church Street, Toronto, on Tuesday, Wednesday and Thursday, November 15, 16 and 17. All persons interested in bee-keeping are cordially invited to attend.

"Hotel accommodation for members and delegates has been arranged for at the Elliott House, on Church Street, at \$1.50 per day. This hotel is quite near the rink, and is one of the most comfortable and homelike in the city.

"Arrangements have been made with the railways for convention rates, and all persons attending the convention and show are requested to be sure and purchase a **single fare ticket** at starting point, securing from the agent or ticket seller a **standard certificate**, to obtain the best return rates when signed by the Secretary at the convention. It is expected that there will be 300 delegates in attendance at the combined conventions and show holding certificates, which will entitle free return tickets.

"WM. COUSE, Secretary.

"Streetsville, Ont."

As the special rates will apply not only to members and delegates attending the conventions, but also to visitors coming in on the railways to the Fruit, Flower and Honey Show, no difficulty should be experienced in securing the desired number of certificates.

We understand that the Ontario Farmers' Institutes workers will have a meeting in Toronto under Government call at the same time. These will come under the head of delegates, and will surely ensure a large attendance and single fare rates to all.

Program of Annual Meeting of the Ontario Bee-Keepers' Association



**Tuesday, Wednesday and Thursday,
November 15-17, 1904.**



Tuesday Afternoon, Nov. 15, 2 p.m.

Reading of Minutes

2.30—President's Address. Discussion opened by Vice-President.

3.30—"Extracted Honey," Morley Pettit, Belmont, Ont.

(Discussion opened by R. H. Smith, St. Thomas, Ont.)

4.30—Question Drawer, President in charge.

Tuesday Evening, Nov. 15, 8 p.m.

A joint meeting will be held by the members of the Bee-Keepers' Association, with the members of the Ontario Fruit Growers' Association, and Provincial Horticultural Societies.

Wednesday Morning, Nov. 16, 9 a.m.

9—Address, Prof. F. C. Harrison, O. A. C., Guelph.

10—Amendments to By-laws.

11—Paper, A. E. Hoshal, Beamsville, Ont.

Wednesday Afternoon Nov. 16, 2 p.m.

2—"Foul Brood," H. G. Sibbald, Claude, Ont.

Discussion opened by A. E. Hoshal, Beamsville, Ont.

2.45—"Importance of Queen Bees," W. Z. Hutchinson, Flint, Mich.

Official reports.

3.45—Election of Officers.

4.30—"Prevention and Controlling of Swarming With the Heddon Hive," F. J. Miller, London, Ont.

Discussion opened by C. W. Post, Trenton.

5.30—Question Drawer, E. Dickinson, Glanford, in charge.

Wednesday Evening, Nov. 16, 7.30.

7.30—"The Past Winter's Losses and the Deductions to be drawn Therefrom," R. F. Holtermann, Brantford.

Discussion opened by C. W. Post, Trenton.

8.30—"Influence of Bee Journals," W. J. Craig, Brantford, Ont.

Discussion opened by Ernest Root, Medina, Ohio.

Thursday Morning, Nov. 17, 9 a.m.

9—"Experiments," John Fixter, C. E. F., Ottawa, Ont.

Unfinished Business.

NOTES AND COMMENTS

By a York County Bee-Keeper.

What is the Egg-Laying Capacity of the "Best" Queens?

In a recent issue of *Gleanings* Mr. Doolittle makes the statement that 9 Gallup frames, the equivalent of 6 3-4 Langstroth frames, are enough to "entertain the best queen to her full capacity as to egg-laying." Dr. Miller in a "Straw" reminds Mr. D. of his claim that a queen lays as high as 5,000 eggs in a day, and yet if what Mr. D. says is correct as to size of hive, if only 3-4 of a frame is allowed for pollen and honey the queen would only have to lay a trifle over 2,000 eggs in a day to keep the rest of the hive full of brood.

Doubtless anything this "noter" might offer by way of differing with Mr. D. would be much in line with the fable of the gnat and the ox. Nevertheless we wish to make the positive statement that for our locality, hives and queens, Mr. Doolittle's estimate is "way out." With my large 12-frame Quinby hives, it is quite a common thing to find 10 frames solid with brood, barring a small strip of honey along the topbar, and with small patches of brood in the two outside frames. Indeed, I remember in one instance of finding 11 of these combs nearly solid with brood with a small quantity in the 12th frame. A bee-keeper of some prominence was with me at the time and I think he would vouch for the correctness of my statement. These figures are not given by way of argument in favor of extra large hives, neither do I claim that our queens are better than the ordinary, as they were for the most part crosses

of Carniolans and Blacks. Might say that quantity of brood mentioned was in the hives early enough to be of use in the clover flow of June and July.

Bee-Stings—a Panacea for Many Ills.

One of the sacred writers informs us that "there is no new thing under the sun." If such is the case we are very slow in attaining to all the knowledge of our forefathers. For years we have heard of the virtues of bee-stings as a remedial agent in curing rheumatism, and in October *Gleanings* Mr. Root tells us that they are used in different solutions for curing diphtheria as well. But to cap the climax just listen to what Mr. Root says further, as to another use for the "ticklers": "We have sold from our New York office two pounds of bees that are to be put in a preparation for restoring the growth of hair on bald heads." We are not told as to methods of application, whether they are to be "transplanted," or otherwise; anyway, the fraternity owe this enterprising benefactor a vote of thanks for his discovery. Certainly no bee-keeper will now need to carry a bald pate and be subjected to freezings, scorchings, flies and other petty annoyances incidental to this infirmity.

Manufactured Comb Honey at St. Louis.

For the past few months the "manufactured comb honey" canard has been pretty actively circulated among the different American papers. Naturally, the bee-keepers were much incensed over the matter and the convention at St. Louis was looked to as an opportune time to throttle and bury the lie for good and all.

Accordingly, after the leading lights of beedom gathered from 'Dan to Beer-sheba,' had in solemn conclave deliberated long and earnestly over the question, a committee was appointed to prepare a statement for the press and have same inserted in the leading

papers But alas! as Burns says: "The best laid schemes of mice and men gang aft a-glee," the statement was telephoned, the fellow at t'other end didn't understand aright, and the next morning's paper informed its readers that the members of the National Bee-Keepers' association, were about equally divided in opinion as to whether comb honey could be manufactured or not As a matter of course this bit of news wasn't pleasing to the bee-keepers, even if it was 'edifying' to the general public.

Accordingly, the matter was again taken up and a reward of \$1,000 was offered by the National Association to any party who could produce two pounds of comb honey, produced by machinery, and prove that such was the case. While this was published by the paper that had blundered before, yet the editor could not resist giving the article a sub-head which stated that the bees couldn't be deceived by machine-made honey. Of course, this in a degree destroyed the sense of the article, but as no further steps were taken by the bee-keepers to right things, presume they were too disgusted to mention the subject again.

West Indian Honey—Its Influence on the Markets.

Mr. W. K. Morrison in "Gleanings" refers to the fact of Canadian commercial agents reporting that West Indian honey has the preference of the British market. Mr. Morrison thinks this serves the Canucks right, as we levy such a high tariff on West Indian honey. Possibly so, but if the West Indian chaps didn't offer to place their honey here at such ridiculously low figures (so low that we could not compete with them and live) we would not find it necessary to impose such a duty. Seems to the writer that almost to a unit the bee-keepers of Canada will say, "Leave the duty on honey as it is and we will take our

chances in the British market." If the Canadian beekeepers had shown half the enterprise in developing the British market, as have our West Indian cousins, methinks conditions would not be as Mr. Morrison describes. Glad to note that, judging from present indications, before another decade passes we will have awakened to the fact that we can compete with the world when it comes to a matter of quality.

That "Popular Fallacy."

In my humble opinion, Mr. Editor, that article of Mr. Poppleton's, copied from American Bee-Keeper is the best contribution to bee-keeping literature that has appeared for many a day. If Mr. Poppleton is correct (and I believe he is) certainly the last vestige of excuse is taken from the producer of extracted honey who persists in extracting before the honey is ripe. Good move if article could be published in pamphlet form and scattered broadcast over the land. The only possible reason for extracting too quick would be to stop swarming, and this difficulty can be overcome, just as well or better by using two or more sets of extracting combs.

York Co., Ont.

In The Bulletin de la Societe d'Apiculture de Tunisie, M. Lukomski says that the poison of bees is endowed with most powerful antipyretic properties, more so even than quinine, and is a specific in fevers, a few stings being sufficient to arrest intermittent fever or malaria, even in its worst form. All the hymenoptera, humble and other bees, wasps and hornets, have the same property.—British Bee Journal.

No man loses anything by being true and steadfast to his convictions. He may not be popular, but what does that amount to? Conscience is, or ought to be, dearer than human favor or applause.—Selected.

BRANT COUNTY ASSOCIATION MEETING

Brant County Bee-Keepers' Association met in the Court House, Brantford, on Saturday afternoon, October 29. There was a fair attendance and a good deal of interest shown by those present. Being the annual meeting, full reports were made, including those of the season's honey crop by members, which showed an average of about 35 lbs to the colony, all told. Officers were elected for the ensuing year, and delegates were appointed to the Provincial association meeting at Toronto, November 15-17. At the election of officers Mr. Chris. Edmondson, Brantford, was re-appointed president; Mr. James H. Shaver, Cainsville, vice-president, and W. J. Craig, Brantford, secretary-treasurer.

Letters were read from the president of the Provincial association, and Mr. H. B. Cowan, secretary and manager of the Fruit, Flower and Honey Show, relative to the suggestion offered at the spring meeting regarding the arrangement of the prize list for the Provincial Honey Show, to provide for county as well as individual competition; the suggestion being favorably received. It was decided to bring the matter up at the meeting in Toronto.

The proper time to place bees in the cellar, or wintering house, was a subject of general discussion. Mr. C. Edmondson said, "never to put them away before settled cold weather," Mr. R. F. Holtermann "as nearly as possible after last flight, about 15th or 20th November." The question was asked "What packing should be used for cellar wintering" and "whether four inches of cut straw and chaff in a comb honey super would be sufficient,"

and answered that sufficient should be used to prevent any collection of moisture on the quilt or honey-board. The four inches of chaff would be all right, but no cover should be used. Bottom boards should be raised 3-8 inch at back. Discussing winter stores, opinions were that when full combs of honey are added they should be placed to one side of the cluster rather than in the centre, or scattered through the brood chamber.

The Requisites for Successful Wintering Bees

The wintering problem is one of great importance in all the northern States, and winter losses have discouraged many a bee-keeper who started out with enthusiasm. No one with only a few years' experience would care to speak with much confidence of what he has done, for fear that a heavy loss in the future might dispel the delusion that he has solved the problem, and mastered the situation.

Winter Losses That Are Avoidable.

I have been wintering bees for twenty years, and considers that my success entitles me to draw a few conclusions from the experience of that of the past. I can say that in all that time I have not lost any colonies the loss of which could have been avoided by certain conditions which appear plain to me. In considering winter losses I wish to ask this question—Why is it that one colony will come through in good shape, and another die when both are exactly alike as far as hives or protection is concerned? Must we not conclude that the cause of death in one is due to some defect in the colony? Could not a large percentage of the winter

losses that are reported be accounted for by the statement that the colonies are not in a normal condition? One cannot lose what he never had. Too many colonies are lost that were reported short of stores or the stores were not in the proper position in the hive, or the colony had a poor queen, or was queenless, or the bees were all old and ready to die, when they were placed in the cellar.

If I put a worthless stock in the cellar to take chances I can hardly speak of its death as a "winter loss."

What we want to go into winter-quarters with is, colonies that are strong in young bees and well provided with stores. In order to have such a condition we must work toward it, and not put off all effort until the end of the season. All summer long, as we work with the bees, we should keep in mind to have the colonies in good shape for winter.

There is no mystery about the loss of queenless stocks or those that starve, or those that die from dysentery caused by using sour or unripe honey, or stuff stored from some cider or cane mill. Could not many of the losses reported be accounted for under one of these heads?

Some one has made the statement that white honey is the only proper thing for winter stores. We all agree that it is good, but I have found that good ripe honey from autumn flowers such as heartsease, golden rod, asters, sunflowers, buckwheat, etc., is all right to winter on, and I always depend largely on this amber honey, except on fields that do not produce it.

I like to leave the store combs on hives that are run for extracting until along in the fall, both for the protection of the combs and in order to catch any surplus that may come along. It often happens that the chambers of such colonies will contain little or no honey at the close of the season. In such a case we must go

through them some warm day in October, and place some well filled comb below.

If at the time of putting the bees away, I find some that are too light, and I have no more combs of honey, I put on a super of No. 2 comb honey full or part full according to the needs of the colony.

There is much to be thought of before we come to the question of

Protection,

yet it is all very simple; only giving heed to certain conditions that should be pretty well understood by this time.

Under-ground winter repositories seem to be the most popular in the North, and I believe that a double wall containing four inches of dry leaves, and the same on top, will make safe wintering out of doors if the other conditions are right. Last winter was said to be a hard one on out-door wintering, but I wintered a number that way. I lost one from lack of stores, and one from depredations of mice.

Advantages of Out-door Wintering.

I should like to winter more that way were it not for the cost of making outer shells. The advantages are that one can prepare the colony for winter at any time during the fall, and have no trouble with them, escaping the hard work of carrying them into and out of the cellar. The bees get early flights and first pollen, which is a relief to the bee-keeper, if not an advantage to the bees.

Improving the Atmosphere of a Damp Cellar.

I have made several wintering cellars in side hills that did good service, and have a cellar under my dwelling at Monroe, Wisconsin, that is all right. An underground repository should be comfortable to the bees. Bees are just like men in one respect; they live by breathing, and they cannot be contented in a damp, foul-smelling at-

mosphere. The repository may not be dry throughout, there may be water on the floor or running through the room, but the air must be good. A dry, well-protected cellar, one not subject to sudden changes, is the best. One way to help a bad cellar, supposing you find it too damp and mouldy, in paying it a visit along in the winter, is to put a foot or so of clean, dry oat straw in the bottom. As to the effect, I ask you, supposing you were compelled to stay in that cellar a few days and nights, would not that load of straw go a long way toward making you comfortable? Bees do not ask to have the temperature of the room as high as you would want it, but otherwise the air should be pure. The straw is a good means of absorbing surplus moisture and making better conditions.

A dry earth roof is also a good absorbant, and I regard it as the best covering for a bee cellar. It will not contract mould, or dry rot as sawdust will many times. Its office is to absorb moisture from below and give off no bad odor.

To sum up, we want good queens, plenty of bees, and plenty of sealed stores as a preparation, and comfortable quarters for the winter.

Harry Lathrop,, Bridgeport, Wis., in "Bee-Keepers' Review."

HONEY COOKIES.

Three teaspoonfuls soda dissolved in two cups warm honey, one cup shortening containing salt, two teaspoonfuls ginger, one cup hot water, flour sufficient to roll.

The Bienenwirtschaftliches Centralblatt states that M. Ziche has succeeded in wintering a swarm of bees without combs for them to cluster upon. The hive was placed in an attic above a room that was well heated, and the swarm was fed with liquid honey. Up to the month of March last the bees had not built any combs. It has, however, become a good colony during the season.—British Bee Journal.

SIMCOE CO. ASSOCIATION MEETING.

The fifth annual meeting of the County of Simcoe Bee-Keepers' Association was held in Barrie on Saturday, Oct. 15, 1904.

About 15 members attended, and a profitable time was spent by all. The morning session was devoted to discussing the season's crop, and other matters of timely importance.

The afternoon session began with an address by Mr. S. Robinson, Vasey, "Feeding Between Seasons," and as many had just been supplying their bees with what stores they lacked to carry them over the winter, it proved an interesting topic, styles of feeders used, also the nature of the food used being feely discussed. The Miller Feeder seemed to be generally used for fall feeding.

"The Production of Comb Honey," by Mr. C. H. Wilson, Hawkestoné, followed, and although he said he was not a large producer he showed that he was fully up to the times in the management of this line of work, claiming that it paid best to always aim to secure the very best article, and to use appliances, and practice manipulations, most conducive to this end. The plain section and fence separator he recommended, also exact bee spaces.

The Question Box was in charge of Mr. James Martin, Hillsdale, and the numerous questions were ably solved by him.

No delegates were appointed to the O.B.K.A. meeting next month, but many have signified their intention of attending, and all were urged to be present.

The following offices were elected-- President, J. C. Morrison; Guthrie; Vice-president, James Martin, Hillsdale; sec-treas. Denis Nolan, Newton Robinson. Spring meeting on Easter Saturday.

DENIS NOLAN,
Secretary.

"SHOOK" SWARMING IN 1880

The following article by George W. House, Fayetteville, N. Y., appearing in the "Bee-Keeper's Magazine," (edited and published by Albert J. King, New York) May, 1880, would go to show that the system of artificial swarming known as "shook swarming" which recently attracted so much attention in bee-keeping circles, is not by any means of recent origin, it was evidently practiced with success 25 years ago, although it may since have fallen into disuse or become a lost art to be re-discovered by Strachelhausen, Boardman and others.

"In the April number of the Magazine Mr. G. M. Doolittle, under the heading of "Making Swarms," gives us his mode of increase where one new swarm from each old one is desired.

We differ from Mr. D. in his manner of operation. First, I will give our plan, and then we shall see the difference and advantages. As soon as a swarm has made preparations for swarming by having eggs deposited in the queen cells, we proceed as follows: Remove the old swarm a few feet one side, and on the old location place a new hive (either empty or the frames filled with foundation) put a small block between the lower front edge of the hive and the bottom board (to give the bees an easy access to the hive) and place a wide board in front of the new hive, with one edge resting against the bottom board, while the other edge rests upon the ground, so as the bees may run up and into the hive. We now open the old hive and draw a frame a little one side from the centre of the hive, and after looking the comb carefully over to ascertain if the queen

is thereon, we turn to the new hive and by a little sudden jerk we shake all the adhering bees on the board in front, and they readily enter their house.

Setting this frame in the shade of a near hive, that we may have easy access to the frames to work, we return to the old hive, and draw the next frame towards the centre, looking for the queen and shaking the bees in front of new hive, as we did with the preceding frame. Replace this frame in its original place, and proceed as with the preceding frame, until you have two-thirds of the bees from the old swarms into the new hive. As soon as you find the queen, take her from the comb and place her at the entrance of the new hive and let her run in with the bees. Now close your old hive and contract the entrance, and remove it to a new location. By this time you may remove the wide board in front of new hive, so that the old location will not be disfigured, and the working bees will lose no time in entering the new hive. The next day give the old swarm a queen cell that will hatch within forty-eight hours and the work is done. A laying queen may be introduced, instead of a cell if desired. The first few swarms will furnish us with queen cells of the most perfect type. But we generally make a few swarms about ten days before we wish to use the cells, and claim there is no difference in queens raised from larvae from two to four days old, and those raised by the queen depositing the egg in the cell. That is during the swarming season.

Now let us compare notes: We agree with Mr. D. that we must conform to natural instinct, or the laws of nature, as near as possible in all our manipulations in the apiary.

In the plan we have adopted, we get as many nurse, or young bees in the new hive as Mr. D. does by his

plan; and by placing the old hive on a new location a few of the working bees will return to the new swarm, on the old location, thereby leaving the old hive in the same condition as Mr. D's. In less than an hour the new swarm will be working with fully as much vigor as though they had swarmed naturally, and having bees of all ages they are in fully as good condition as those of Mr. D's.

Now, let us see what advantages we gain. First, our bees in the new swarm are at work one hour before Mr. D's are. Secondly, we can make at least three swarms to Mr. Doolittle's one. This we consider a very great point in favor of our plan. For the day is not distant, when the apiarian that can manage the most bees, in the same length of time (all conditions equal) will be considered the most skilful and the most successful. In artificial swarming on the above plan, you will notice we secure our new swarms at least a week sooner than we would by allowing them to swarm naturally, and in the old hive we have a laying queen at least five days earlier than we would by allowing them to hatch their own queen, two very great items during the honey season. Swarms having extra qualities we allow to raise their own queen cells, that we may use them in other hives, thus improving the qualities of our bees.

After a few days, I claim there is no one that discover the difference between such a swarm and one that swarms naturally. We have practiced this mode of swarming for the past 15 years, and are satisfied there is no plan that surpasses it, where you wish to have one new swarm for each old one.

It is but justice to say I sent this plan of artificial swarming to one of our Bee Journals several years ago, but for some reason the editor refused to publish it.

Fayetteville, N Y., April 12, 1880.

BRITISH HONEY IMPORTS.

The British Bee Journal gives the following particulars of British imports of honey copied from the Board of Trade returns, 1903:

	Declared Value	
	Cwt	£
Germany	322	450
France.....	1,642	4,448
Italy	212	334
U. S. A. Atlantic	2,413	2,935
" Pacific	813	1,228
Peru.....	540	513
Chile.....	4,435	4,507
Other Foreign Countries	614	750
Total Foreign	10,991	15,166
Australia	4	10
Canada	177	371
West India Islands.....	11,529	13,834
Other British Possessions	570	968
Total British	12,280	15,183
Total Imports	23,271	30,349

It will be noted in the above that Canada's quota amounted to 177 cwt., (112 lbs to cwt.) at £371, or slightly over 9c per pound. Imports of Canadian honey, 1891 to 1903 were as follows:

	Cwt.	£
1896	70	272
1897	41	75
1898	921	2,029
1899	1,177	2,147
1900	500	934
1901	123	222
1902	153	316
1903	177	371

Our largest export was in 1899. The writer in the B. B. J., Mr. T. I. Weston, commenting upon the imports and their effect on the home market, says:

"From the above we can gain the great encouragement that, in spite of a great increase in population, and a great decrease in price to stimulate consumption, yet the quantity imported has not increased.

France sends us yearly about the same quantity of the best quality of honey. The United States have declined from 8,000 cwt. to 3,000 cwt., and in price from 35s. 6d. to 25s. 9d. Canada began to show in the returns in 1896 with 70 cwt., at the high price of 67s. 8d., increased to 1,177 cwt., in 1899, and has now fallen off to 177 cwt., prices here having fallen too low to please the producers, who can find a market for all their best quality at home. The Spanish West Indies, which in 1891 sent us 5,385 cwt., ceased sending in 1894, owing doubtless to the rebellion and internal troubles. We do not seem to have had imports from there since the vacancy thus caused having been more than filled up by our own possessions in the West Indies. In '91 they sent us only 1,614 cwt., at 36s. 8d per cwt.; last year we received our largest supply from that source—viz., 11,529 cwt., at 23s. 1½d. The Chilian supply has fluctuated greatly, and seems falling in 1892, and again in 1901 they sent us 11,700 cwt., but last year only 4,435 cwt., at 20s. 9d. Australia, owing to drought, has nearly dropped out of the return. The point that I would call attention to is that at a wholesale price of 6d. per lb. we ought, and can, compete with foreign honey, and that there is no need to go below that price for a sound article."

HONEY FRUIT CAKE.

Four eggs, five cups of flour, two cups of honey, one cup of butter, one cup of sweet milk, two teaspoonfuls of cream of tartar, one teaspoonful of soda, one pound of raisins, one pound of currants, half a pound of citron, one teaspoonful each of cinnamon, cloves and nutmeg. Bake in a slow oven.—Selected.

Canadian Bee Journal and The Weekly Sun (Toronto), clubbed, one year for \$1.50.

SELLING GRANULATED HONEY.

Editor Canadian Bee Journal:

I notice by C. B. J. some time ago that R. F. Holtermann advocates selling honey in its granulated state, more particularly by allowing it to granulate in barrels and dumping it out to view in grocers' windows. The idea is a good one, but friend Holtermann is a little bit late in getting it up, if he is only contriving the idea now, as I dumped a small keg of some 80 lbs weight at the fall fair in Stratford in the year 1883 or 1884, will not be certain which, but it was about that time. I had it in a glass case with the back to open, so that I could cut off chunks for the spectators, and I never showed anything that attracted more than this chunk of solid honey. Then in the year 1893 I sent a similar keg to the World's Fair at Chicago, and to have it exhibited nicely I molded four wax legs and had a tin plate made to set on these legs, and then the solid honey was to stand on the plate. The plate was double and hollow, it was 2 inches deep and 13 inches in diameter, but outside of that there was a trough 1½ inches wide and same depth as the plate, said plate was to be set on the wax legs, these fastened to the table on which they stood with fine wire, and then the honey was to be covered with a bell glass, if not in the case. These instructions were sent to the lamented Mr. Pringle, who was our Canadian superintendent, and although I was not at Chicago, I saw by the papers that it was a great attraction. In instructing Mr. Pringle about dumping it, I wrote him to take off the upper hoops and two on the other end, nearest the centre, take out the end and turn the keg upside down, and the chunk would drop. You will understand that there was only one hoop left on, and it held the staves and bottom in place until the other hoops could be replaced. Mr.

Pringle sold the honey, but sent back the wax legs in the keg. I have decided to send them to you to make into comb foundation, which will pay me better than keeping them for relics.

If I were a grocer I would not care about dumping 700 lbs of solid honey at once. I think a keg of, say, 150 or 160 lbs is quite large enough. Many a one I have dumped to get the honey in shape for reliquifying.

I forgot to mention that the trough around the plate for display was to catch the honey in case it should melt with the heat. There was a hole for it to run through and fall into a vessel below, and sure enough Mr. Pringle had to melt it up before the exhibition was over, but he wrote me that it looked well in its liquid form. I might just say that, like the other exhibitors, I received a bronze medal.

Poole, Ont D. CHALMERS.

We think you are right, friend Chalmers, about the smaller quantity, apart from it being more easily handled, the smaller bulk is likely to be more thoroughly granulated to the centre. We note that our American cousins have been advocating selling honey in this way, too, but do not give either you or Holtermann the credit for the idea.—Editor.

GETTING RID OF ANTS.

In *Elsass-Lothringischer Bienen-Zuchter*, Ch. Zwilling gives an infallible method for getting rid of ants, which are often troublesome in an apiary. Make a hole in the ant's nest with a stick, and drop into it a piece of camphor about the size of a filbert, and then close up the hole. After a few days it will be seen that all the ants have deserted the nest, for the smell of the camphor, which gradually permeates the ground, is obnoxious to them, and they get as far away from the odor as possible. To get rid of them from hives, the walls, floor-

boards, stands, and all parts where ants are likely to run over, should be rubbed with a cloth in which a piece of camphor has been wrapped, or the cloth may be moistened with camphorated spirit. At the end of the week, there will be no more ants.—British Journal.

VICTORIAN BEE-KEEPERS' ASSOCIATION CONVENTION— AUSTRALIA.

(President's Address.)

The President, in his address, said that the bee-keeping industry was improving, the market was improving, and the outlet increasing. The honey flow had been a comparative failure all over the State. In spite of this, tins and tins of honey were to be seen in the stores. This, perhaps, discouraged people, who wondered whether it was worth putting more money into the industry. Honey was bringing 2 1-4d. to 3d. per lb. in Melbourne. They ought to improve the trade outside Victoria. Strong competition was threatening from New South Wales, and they already had South Australian honey on the Victorian market. Shipping freights were so low that beekeepers in other States were able to land their honey in Melbourne more cheaply than Victorians who had to send their honey by rail. There were many openings for honey outside Victoria. He had himself sent honey to India, where the granulated honey was in demand. Three different firms in Johannesburg had written to him asking for honey, but he could not supply the demand. He did not wish to boom the industry, but he felt that the prospects were good. They ought to do something in a co-operative way. He was anxious to see the Association growing, but there should be a larger proportion of bee-keepers members. They must represent the bee-farmers of Victoria, really, and not only a section of them nominally. He was pleased to see that the Government was taking notice of the industry, and in the forest expert, Mr. Tatham, and Mr. Murray, the Minister for Agriculture, we have men very strong on behalf of the industry. It was a great gain compared to what the industry has been looked upon.—Australian Bee Bulletin.

Queries —AND— Answers

[Department conducted by Mr. R. H. Smith, St. Thomas, Ontario. Queries may be sent direct to Mr. R. H. Smith or to the office of the Canadian Bee Journal.]

(1) What is the best method of wintering bees? (2) How may the cellar be properly ventilated? (3) Will dampness affect bees in the cellar if it is well ventilated?

FRONTENAC.

Answer.—(1) In most parts of Canada a good underground cellar where the light and temperature may be controlled is the best repository I know of for wintering bees. Where a good cellar cannot be obtained I would pack them in forest leaves, as described in the September number of The Canadian Bee Journal. (2) If the cellar is under a dwelling, it may be ventilated by a pipe running from near the cellar floor to the kitchen stove pipe or chimney. Some bee-keepers have a pipe running some distance underground to convey the fresh air to the opposite side of the cellar to the outlet. I would not think this was necessary unless the cellar was very tight and a large number of colonies were placed in it. (3) I have never known dampness to injure bees in a cellar that was well ventilated, and the temperature not lower than 45 degrees.

(1) Do you think it would pay to plant basswood for honey in New Brunswick? (2) Where can I get small basswood trees, and how much would they cost per dozen? (3) My bees in the latter part of the season began tearing out young brood. Most of them were nearly ready to hatch. In the mornings there would be from two to three dozen at the front of the hive. Do you think it is black brood, or what is the trouble? They have

made no honey this season. They have been robbing some.

A.R.A., New Brunswick.

Answer.—(1) I do not think it would pay to plant basswood trees for honey alone. The basswood grows very quickly, and if a number were grown together on good land they would soon become valuable for lumber, and would yield more or less honey in favorable seasons. A former bee-keeper in this district planted out about 300 basswood trees this season around his farm for shade and bee pasture. (2) Your local nurseryman could probably supply you. The price would be in proportion to the size of the tree. Small trees cost from \$8 to \$10 per 1,000.

(3) From the description given, I would suspect it was the work of the larvae of the wax moth, and not from disease. If the bees are black it often occurs. Your colony is evidently weak and that may be one reason they have stored no honey and are being robbed.

My little boy, 5 years old, has been stung three times, and each time it goes through his blood like prickly heat and makes him very ill for two or three hours. Would like to know if there is anything serious in such a case?

DOVERCOURT.

Answer—It sometimes happens when a child is stung it will become frightened and overheated, and this will cause the symptoms mentioned, but I cannot recall a case where anything more serious resulted. The effect of bee stings on some people is to make them swell and feel sick at the stomach. In each case an emetic will give speedy relief.

I had a swarm of bees yesterday. They had a queen, but they went back. I went through and found them all right. They are very strong. What caused them to swarm at this, October 18th?

J. C. Calder P. O.

Answer—When a queen is superseded in the fall it is not uncommon for the bees to go out with the young queen when she flies out to mate, and they will return with her, as in the case given.

St. Thomas, Ont.

R.H.S.

Canadian Bee Goods for Canadian Bee-keepers



Send for catalog and price list with instructions to beginners in bee culture.

WE are prepared to furnish full lines of Bee-keepers' supplies strictly first-class in quality and workmanship and at right prices.

Try one of our Brass Smokers they are considered the best out.

Highest market price paid for pure Beeswax.

Goold Shapley & Muir Co., goods at factory prices.

R. H. SMITH

St. Thomas, - Ont.

POULTRY NEWS

25 CENTS A YEAR

Has Special Bee Department Conducted by
W. W. FOWLER, OF ARDSLEY, N. Y.

WILLIAMS & MEDLAR
PUBLISHERS

New Brunswick, New Jersey, U. S. A

Have You Tried

My Leather Colored Italian Queens. They are giving splendid satisfaction. Prices after Aug. 1st:

Untested, 85c. each, \$4.50 for Six

Tested, \$1.25 each, \$7.60 for Six

Safe Arrival Guaranteed.

FRANK ADAMS
BOW PARK APIARY
BRANTFORD, ONT.

CANADIAN POULTRY REVIEW

BEST ALL POULTRY PAPER PUBLISHED

1 year.....50c.
3 years.....\$1.00
3 subscriptions, 1 year.... 1.00

SAMPLE FREE

ADDRESS: TORONTO, ONT.

Honey Cans and Glasses

Comb Honey Show Crates and Shipping Crates. Also a large variety of Fancy Glass, and Glass Shelving for exhibition purposes.

Goold, Shapley & Muir Co.
Limited
BRANTFORD, CAN.