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BRANTFORD, ONT., NOVEMBER, 1900.

WHOLE No
429

Annual Meeting

Twentieth Annual
Meeting Bee-Keep-
ers' Asso., Ontario.

HELD AT
TORONTO,
DEC., 1899.

Bee-Keepers' Associations; Their Past, Present and Future

W. H. Hutchison, Flint, Mich.

The time was when a man who owned some bees would walk a mile or two to see an article "on bees" in some paper. The time was when a bee-keeper would come home from a convention fairly loaded down with the new things he had learned. If the wives of bee-keepers who now attend conventions would ask their husbands upon their return what new things they had learned I think some of them would have to scratch their heads before replying. The time was when the principal feature of an association was the dissemination of methods for managing bees. This is no longer true. The social pleasures are now the paramount feature of a convention. Perhaps no one has admitted this; but look down deep in your heart and see what answer you find to the question, "Why did it come?" Editors of bee-journals, the supply dealers, may go to a convention to further the interests of their business, and it is entirely proper that they should, but the producer comes mostly, princi-

pally, and all of the time "to see the boys and have a good time." I will admit that many things in regard to managing of bees for profit are still learned at conventions; and these gatherings would still be as valuable for this purpose now as in days of yore, were it not for the great number of most excellent and low priced journals devoted to the business. No sooner does a bee-keeper make some new discovery than he reports it to his favorite journal; and other journals copy it; and by the time that a convention meets there is nothing new to talk about—it has all been told.

But the social feature of a convention is not to be sneered at. The friction of mind against mind, this rubbing up against our fellows, brightens us, sharpens our wits, gives us broader views, and makes us better bee-keepers and better men. Then, there is the pleasure of it. This life is not simply a life of dollars and cents. At least it ought not to be. The man who has worked at home all summer owes himself and his wife an annual outing with kindred spirits.

From a business point of view the usefulness of bee-keepers' associations in the future will be the accomplishment of those objects that require united action—those that bring to mind the motto: "In union there is strength." Associations can accomplish things that are beyond the

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power and purse of the private individual. See what legislation has been secured for bee-keepers both in United States and in Canada, through united action—through association. Foul brood laws, laws against the spraying of trees while in bloom, laws against adulteration of honey, the protection of bee-keepers in their right to keep bees, lower freight rates, etc., have all come from association. The Bee-Keepers' Union stands ready to defend bee-keepers in their rights, to assist in the passage of needed laws, to prosecute adulterators, to help its members in any way wherein is required united action. United action in the shape of exchanges, has done much for bee-keepers in the way of buying supplies and selling honey. It is in such directions as these that lies the work of associations in the future.

Mr. Hall: I think Mr. Hutchison's paper is a very valuable one. He tells us in it of the meetings and conventions of the past, of what we are doing in the present and have to do in the future. Of course, we have learned a great deal at these conventions. The reading of journals is all very well, but we have no debates in them. The instructions we get at these association meetings are practical information for the young apiarist as well as for the most experienced. Last night's discussion would have been worth twenty dollars to me when I started twenty-four years ago. When I commenced bee-keeping we had no bee journals; we had what was called a bee-journal, but the management did not know what they were writing about, and they put us on the wrong track, and we lost money. At a convention if you do not understand what a man says you can button-hole him and ask him to explain it. It is great benefit to the young men connected with this asso-

ciation and who are just starting or who intend to start bee-keeping to have the practical old heads hit each other pretty hard knocks in good humor. This association has been successful in obtaining a foul brood law, and this I consider is a very important measure to the bee-keepers of the country; we have succeeded in obtaining a law against spraying, although it is not enforced as it should be; and also in respect to the adulteration of honey if we only report the adulteration to the government they will see that the offender is punished. We had a pretty good time yesterday afternoon in the social part and we enjoyed it. Sometimes, too, the older heads get thoroughly good ideas from the younger, and so far the old and young associations of the present are doing a work not to amuse only but to give men a chance of knowing and encouraging each other in their work.

As far as bee-keeping in the future is concerned I cannot say much about it; I think in the future it will go pretty much as it has done in the past and is doing in the present; the young ones will come to take our places; others will want information and so they will simply continue the work we have been doing with the material we leave behind. We leave the property to them, and they will go on in turn and impart what they themselves have learned in addition to the younger ones coming up. This after all is the great work of the association.

Mr. Dickinson: There is a good deal of truth in the paper, and there is quite a bit of truth in the remarks made in connection with it by Mr. Hall. We may think we know something about bee-keeping, there is one advantage in coming to these conventions, we find out we do not know so much all, and there are other men who

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know just as much, and perhaps a little more, and from whom we can learn something helpful to ourselves.

Mr. Dickson: I like Mr. Hutchison's paper. There was one slight hint about our coming to these conventions—but don't call them conventions at all—call them bee-meetings where we learn something about bees—there was the hint in regard to taking away information. I believe that is the fault of a great many of us. Something was said about scratching our heads when we get home and wondering where the information was. I remember one man coming home last summer and he said, "I do not know that I will attend our meeting again; when I get home I cannot remember anything." "Can you read and write?" "Yes" "Why not take notes?" When we attend our meetings we should take notes. I learned some good things here yesterday afternoon and I am taking notes of things that I think will be helpful to me. Another good thing that was hinted at was the running to the journals when you find out something new. That is a mistake. If there is any one who finds out something new he'd better try it pretty hard, and give it the fullest test, and tell us about it then. It has been the means of flooring many a one in the bee-business by trying some of the things that came out in the journals. Sometimes we think we have found something new that was not really a success at all. I think we should encourage the ladies to attend, because—whether it is a fact or not—we give them credit for taking in more than we men do. I find it very hard to keep my wife at home when there is any good work going on in the convention of attending meetings. The paper is not very deep, and there are no elaborate expressions about it. Per-

sonally I know Mr. Hutchison; he has used me well and he never forgets to repay anything you may do for him.

Mr. Newton: I am sure I have always looked forward to our conventions as a pleasure, but I have always looked forward to having a profitable time as well. I like to meet the boys and spend a good time with them, but I always think of taking something home with me, that has been of interest to me during the convention. I believe the same thing applies in the bee industry as in most of the other societies, unless we keep in touch with each other in the different ways of working we will never make a success of our business.

Mr. McEvoy: I think if we would tell of the mistakes we make as well as the successes we have had it would be a sort of guide to others not to go and do as we have done.

On the motion of Mr. Pickett, seconded by Mr. Craig, a vote of thanks was passed for Mr. Hutchison's able and valuable paper.

"Dr. Keane has received a letter from Countess Cesaresco, of Bocking, Eng., who, in a description of a visit paid by her to the Paris Exposition, makes complimentary references to an exhibit of honey made by the Goold, Shapely & Muir Company."

—Brantford Expositor.

Honey Lemonade—Lemonade sweetened with Sugar has a tendency to increase thirst instead of quenching it. Fix the lemonade in the usual way, but sweeten with pure honey (extracted preferred.) This not only improves the quality of the lemonade but will quench the thirst and make the drink more refreshing.

—J. H. D.

Communications.

Eggs in Upper Stories.

Dear Sir.—I noticed Mr. Alex Goodfellow's statement in the September journal about bees moving their eggs, also your remarks on the same. Did Mr. G. find a young queen in that cell and did he find worker brood in the upper storey and if so was it in scattered cells or compact patches? If the latter, I would say that the queen got through the metal. My experience with brood in upper stories is, if there is worker brood at all it is sure to be in solid patches and the queen is there too.

Nearly every season in my own apiary I notice here and there a cell containing drone brood in the upper stories and this in colonies in normal condition. In my opinion the bees either carry eggs up from the brood chamber or fertile workers are responsible for it, although there is a queen in the brood chamber. This latter I believe to be the solution, for if the workers carry the eggs why do they not carry worker eggs as well as drone? This I have never seen done.

ERASMUS. GEO. WOOD,

A New Bee Escape.

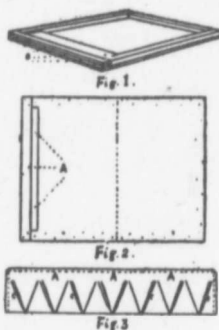
Editor Canadian Bee Journal.

Dear Sir—Having had considerable experience with various kinds of bee-escapes, and finding none of them satisfactory, I worked out an escape this year which has proved a success, and was awarded first prize at the Toronto Exhibition. Hoping it may interest some of your readers, I will try to describe it.

To be practical, an escape should

be rapid in action and reliable, emptying a super in the shortest possible time, without danger of stoppage by clogging. To be reliable it should be simple, and to be commonly used it must be low in price.

Below are some cuts showing the construction of the escape. Fig 1 shows the upper, and Fig 2 the lower surface.



The board is the same size as the hive and is made of $\frac{1}{4}$ in. lumber nailed to strips $\frac{3}{8}$ in. wide and $\frac{1}{2}$ in. deep at the sides and back. At the front there are two strips $\frac{3}{8}$ in. wide and $\frac{1}{4}$ in. thick, $\frac{1}{4}$ in. apart, the space being covered on the inside by a strip of wire cloth, allowing light to enter, but preventing passage of bees. Just behind these strips there is an opening (A-Fig 2) about $\frac{3}{8}$ in. wide the full width of the board. Fig 3 shows the escape itself on a large scale than the other figures. A piece of tin 3 in. wide and $\frac{1}{2}$ in. longer than the width of the hive inside, has each end turned down $\frac{1}{4}$ in. and its front edge turned up $\frac{1}{4}$ in. Strips of tin $\frac{1}{4}$ in. wide and about 4 inches long are bent to a v shape, light brass springs c c c are soldered to them, and they are soldered to the under side of the tin, as shown, with their ends a space apart. When the escape is put in place on the board, the part A comes over the opening (A-Fig 2), and

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light from the opening (B-Fig 1,) passes through the escapes.

When one wishes to clear a super of bees without removing it, it is lifted up and an escape board shipped between it and the brood chamber, the bees in the super, finding themselves separated from the queen, become excited, and, seeing daylight, run towards it. They pass through the escapes, and, finding their way barred in front by wire cloth, and behind by the springs, have no choice but to go down. In a few hours the super will be practically free of bees, and may be removed without the use of smoke.

H. R. SMITH,

St. Thomas.

Seeding for Bee Pasturage.

Editor Canadian Bee Journal.

Dear Sir:—At the close of a honey-season such as the one just passed, the question very naturally arises as to how matters are to be mended or improved upon for the next season and the years to follow, to the end that the lowering clouds may be cleared from the apicultural sky, and that the aspect, from a financial standpoint, may become more assuring and take a roseate hue instead of the dull grayish cast of short crops, disappointed hopes and depleted exchequer.

This has been the dominant question in the minds of a host of beekeepers throughout the Dominion as a consequence of the failure, or partial failure, of the honey crop, in many, very many, localities, in this nineteenth hundredth year of Grace.

Among the many schemes and remedies (good, bad and indifferent,) which have been exploited for the betterment of our industry, there is one which suggests itself to the mind of this deponent, as being worthy of,

at least, a passing notice in your most estimable Journal, namely: The improvement of our bee-pastures.

It is perhaps advisable to not deal exhaustively with this topic in this article, therefore we shall briefly call attention to one or two of the most salient features in this connection and then leave the matter for other, and perhaps more practical, individuals to elaborate.

1st. Take the matter of pasturage on the high-ways and let us suppose, for instance, that our bee-keeper lives at or near a cross road and he wishes to improve his bee pasture for, say, two miles in each direction, north, south, east and west, and he concludes that he can do this most quickly (and at the same time greatly improve the appearance of the roadway) by giving a thorough seeding with white clover. He makes an estimate of the cost with the following result:—One rod in width on each side of the road for a distance of two miles in each direction is equal to a strip of land two rods in width and eight miles in length, or, apparently, thirty-two acres. Now for the seed, four pounds to the acre is considered sufficient when red clover is used, so the same quantity of the much finer white clover would be an abundance. Four pounds per acre for thirty-two acres requires 128 lbs, at say 14 cents per lb., \$17.92, and for man and team with light harrow for doing the work, \$6.08; total \$24.50. A narrower strip of land along the roadway or a shorter range would of course cost less in proportion as it is reduced.

2nd. Keep the farmers in the immediate vicinity supplied with Alsike Clover seed at the lowest cost price, or, perhaps better still, supply them free of charge. This last may not be a new idea as I believe it is advocated in some of the standard works on

bee-keeping, however, it is worth remembering.

3rd. All waste lands or broken lands should be very liberally treated to the seeds of sweet clover, motherwort, and such other honey-producing plants as are obtainable.

Now, Mr. Editor, having thus briefly outlined, what seems to me to be a plan for improvement of bee pastures, and having trespassed in taking up too much of your valuable space, I shall drop the pen and entertain the hope that abler hands will grasp it and shove it along to a finish

M. B. HOLMES.

Athens, Oct., 16, 1900.

Uncapping Stores in Spring—A Seasons Results.

To the Editor C. B. J.

In response to your request for a paper, setting forth my experience during the past season, I may say that I do so with pleasure. Before doing this, however, I wish to say to those of your readers who are old and experienced bee-keepers, that I am only a novice in the business, consequently much that I may say, may appear queer to them.

I wintered two hives outdoors, well packed in a packing case prepared for the purpose. They came out all right. One came through very strong and threw a big swarm about the third week of May. The other was very weak, and caused me some anxiety, but thanks to an article which appeared in the Journal early in the year by that astute bee-keeper, Mr McEvoy, I undertook to assist nature. There were three or four frames of honey in the hive that had never been touched by the bees all winter. I would have left these in the hive just as they were, had it not been for the reading of Mr. McEvoy's article.

In this article he stated that the bees might be in need of honey and yet not uncap the honey they had in the outer frames. I believe that was the case with this hive. There was only two frames that had a little brood in them and that was on the two sides facing each other. These were at one side of the hive, the side that lay next to the other hive packed in the case. They were clustering entirely on the sides of each frame that contained the brood. On the other side of the hive not a bee was to be found. I took one of the frames and uncapped the honey and put it down between the frames on whose sides the brood was deposited. This is what you call spreading brood. I uncapped two more frames and put them on either side of the frames containing the brood. I reasoned that this brood cannot chill. The weather was gradually growing warmer, and inasmuch as I had them well packed there could not be much chance of the brood chilling, nor did it chill. But the bees having uncapped honey lying right next to their brood, started in to feed it, and it was only a few days till the queen had a large patch of brood on both sides of the full frame that I had placed between the two frames that had the first brood in. Now I had brood in three frames, one—the centre one—having brood on both sides, and the brood rapidly increasing on the one side of each of the other two frames. I then said to myself that our good McEvoy knew what he was talking about. I then uncapped all the remaining combs and in a short time the bees were covering every frame, and came on with increasing rapidity. It turned out splendidly and gave me two supers of extract honey. But I put this practice to more severe test. I bought two hives from a gentleman who boasted that he had not adopted

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any new-fangled methods, but wintered his bees out on their summer stands without any protection whatever. The next few days after leaving them placed in my yard, I noticed a great many dead bees in front of the hive. I could not understand it, and thought it was due to robbing. So I determined to open the hive and have a look at it. And lo! what a condition of affairs! A few bees were clustering at the back end of two frames, while throughout the remainder of the hive the bees were clustered in bunches—dead. I found a bee buried in every cell! How the few bees came through the winter I don't know. The little fellows were expending all their entire energy on house-cleaning; and I venture to say they would not have completed the job until July! I took all the frames out and broke up the comb, because each cell contained a dead bee, and I thought it useless to let the bees waste their time cleaning them up. I gave them new frames with uncapped honey; cleaned their hive out thoroughly, and oh, how they did work. The queen laid, and the brood spread, and—well I made a hive, that's all! The other hive bought from this gentleman was an old fashioned glass hive, (which I afterwards broke up.) But it was well made and offered some little protection to the bees, and they succeeded in coming through all right, and were in good shape, and threw me a good big swarm in June that did well in surplus honey. After this experience, however, I have determined to buy no more hives wintered on their summer stands. That man is a fool who says he will have nothing to do with new-fangled ideas, he is a conservative—mossback—opposed to all progress, and the sooner he is disposed of, after the manner in which the old man would dispose of his son—the

better. To make this clear, I suppose I ought to tell you the story of the old man. He sent his son down town one day to buy Paris Green to put upon the potatoes to kill the bugs. The patch was a small one. The young man bought a pound of Paris Green came home and put it ALL on the potatoes. A day or two after the old man enquired about the potatoes, and was told by George how he disposed of them. The old man's lower jaw dropped; he looked at George, and when he got his breath said: "George, by the 'tarnal heavens, I wish to the Lord you were a hundred and forty-seven feet under the g-r-ou-n-d!" There is nothing moss backed about our friend McEvoy. Thanks, McEvoy, thanks. This is but a small part of my experience, but this letter is too long now.

Brantford, Ont. JAS. J. HURLEY

Bee Appliances and Honey at the Paris Exhibition.

Having visited the Exhibition twice this summer, I had a full opportunity for a good look around amongst the different exhibits of honey, wax and bee-keeping appliances, and thought that a brief description of what I saw might be interesting to readers who are unable to visit the Exhibition.

The first honey display I came across was a splendid show of section and extracted honey sent by Canada. The sections were four-piece ones, with bee-way top and bottom only, filled with beautifully white and even combs; the extracted honey ranged in color from almost white (yielded by the basswood blossoms) to various darker shades from other sources. I should have liked to sample some of the different kinds of honey, but, fortunately, "tasting" was not allowed, or I expect Canada would have had to

ship a fresh supply over considerably before this time.

Among the most prominent exhibitors of Canadian honey were the Gould, Shapley & Muir Company, of Brantford Ontario, who exhibited extracted honey rather dark in colour. The "Experimental Farm," Brandon, Manitoba—this firm's extracted honey was nicely "put up" but also of dark color. Mr. Wm. McEvoy, (Foul-brood Inspector for Ontario) also showed some good extracted honey, which closely resembled that from our English white clover. Nearly all the extracted honey staged had begun to granulate, some being set quite hard, and that from basswood looked almost pure white when granulated.

The packages used for sending extracted honey by rail are open-slat cases, holding two or more tins. They are made very strong, but too heavy for this country, where weight has so much to do with freight charges.

Neither the United States nor England had any show of honey whatever, which to my mind was a matter of regret, especially as we in England are so close to Paris. It was therefore left to Canada to represent the English-speaking race in the matter of showing honey at this great Exhibition.

The A. I. Root Company, of Medina, Ohio, had a collection of bee-appliances, consisting of dovetailed hives and other bee goods. These hives, however, are, in my opinion, not suitable for our cold winters. They also had a very good display of their well-known "Weed" foundation. The Falconer Manufacturing Co., of Jameston, New York, also had a good collection of hives and appliances. Messrs. Dadant & Son, Hamilton, Hancock Co, Ill., U. S. A., the well-known foundation makers, had a

very fine collection of their different foundations, chief amongst them being made by the "Weed" process.

The several French bee-keepers' societies had fine displays of both extracted and in comb. Among the exhibits of comb-honey were numerous designs worked out in comb by the bees, in preparing, which the French bee-keepers appear to be very clever. The Societe d'Apiculture d'Aisne were awarded the Gold Medal in this section for a fine display of sections and honey-comb designs, some of which looked very beautiful. The honey, however, was nearly all granulated, and some of the comb-honey had already begun to "weep," which gave it rather a greasy appearance. Among honey-beverages hydromel was much to the fore, neatly put up in white glass bottles, which looked well and gave it a fine appearance. Beeswax was also largely shown, but the color was rather red. The "Societe Centrale d'Apiculture" had a big display of honey and beeswax, and here again the honey-comb designs were very much in evidence. The Societe d'Apiculture de la Savoie staged a display of rather dark honey and a most complete collection of honey producing plants, many of which could be easily recognized as common in England.

Belgium was also well represented in honey, wax, and hydromel, a very good display being made. Amongst the French appliance makers were MM. Raymond Garie, of Paris (who was awarded the gold medal for a fine collection of hives and appliances,) L. Robert Aubert, a Saint-Just-en-Chaussee (Oise,) M. Aubert being awarded the silver medal for a very good display of appliances, amongst which were several useful contrivances for handling frames, moving hives, &c. Taking the French ex-

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hibits all through, their honey did not look so nice as that which may be seen at some of our large shows in this country. The appliances also appeared to me to be rather awkward to handle, a great drawback being the numerous sizes and different forms of hives and frames in use which entirely prevents interchanging and does harm in many ways.

The International Congress of Bee-keepers held in the Exhibition grounds on September 10, 11, 12, at which I was enabled to be present, appeared to be a great success, judging from the large number of delegates who attended from nearly every country, Great Britain standing almost alone so far as being unrepresented by an official delegate. Amongst the delegates were Mr. J. T. Calvert, of the A. I. Root Company, Mr. Chas. Dadant, and L'Abbe Bede, a prominent French bee-keeper whom I had met in Antwerp in 1894, at the exhibition held there in that year. The various questions discussed show that our Continental neighbors study the points of bee-keeping in a most scientific and thorough manner, whilst they foster and encourage bee-keeping to a considerable extent.

I was fortunate in meeting Mr. Dadant at the Congress, who kindly explained what was going on. The Congress finished up their meeting with a banquet in the evening and a trip out to Fontainebleau next day. The next Congress, I think, is arranged to be held in 1903, in Holland.—
E. H. TAYLOR in British Bee Journal.

We believe that Canada's exhibit of Comb-Honey above referred to was that by The Goid Shapley & Co. of their Company, Brantford.—[Ed.]

A Deed and a Word.

A little stream had lost its way
Amid the grass and ferns ;
A passing stranger scooped a well,
Where weary men might turn ;
He walled it in, and hung with care
A ladle at the brink ;
He thought not of the deed he did,
But thought that all might drink.
He passed again, and lo! the well,
By summer never dried.
Had cooled ten thousand parched
tongues,
And saved a life beside.

A nameless man, amid a crowd
That thronged the daily mart.
Let fall a word of hope and love,
Unstudied, from the heart ;
A whisper on the tumult thrown,
A transitory breath—
It raised a brother from the dust
It saved a soul from death.

O germ ! O fount ! O word of love !
O thoughts at random cast !
Ye were but little at the first,
But mighty at the last.

—Charles McKay.

To prevent wax from cracking when moulding into cakes, lay a board on the pans and cover over tightly with a cloth, so as to keep out all cool air. The air causes the surface of the cake of wax to contract sooner than the middle. A cake of wax is smaller when cold than when hot.

Good, ripe extracted honey should weigh three pounds to the quart. It is one-third heavier than water because of its density.

Avoid Quick or agitated movements in working among the hives, such as striking at flying bees, or drawing the hand back quickly for fear of being stung.

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Devoted to the Interests of Bee-Keepers,
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BRANTFORD - CANADA.

Editor, W. J. Craig.

NOVEMBER, 1900.

EDITORIAL NOTES.

ON behalf of many readers we would express thanks to Inspector McEvoy for the full answers he so kindly contributed to the questions concerning the proper treatment of foul broody colonies in our last issue.

WE are indebted to the "North-west Farmer" for the article on "Bee-Keeping in Manitoba" and for the loan of the cut used in connection. We are pleased to note the attention given to this department by our western friends. "The Farmer" is thoroughly alive to the interests of the people it represents and, like things generally out west, "is going right ahead."

AN article by T. H. Powell, Castle Acre, England, in the "British Bee Journal" describes a series of experiments conducted by him with the "Weed" and other makes of comb foundation. We note that the results were very similar to those of a some-

what similar experiment carried out in our own country, and partly under our own supervision, with the "Weed" process and old process foundations.

MR McEvoy's experiment gives very conclusive evidence against the use of honey dew for winter stores, we have always felt somewhat suspicious of the stuff but never had enough of it to experiment with. In this McEvoy has contributed a piece of very valuable information to bee-keepers, but at a cost of almost twenty colonies of his bees. A number of people have asked regarding buckwheat honey, if it is allright for wintering. We would say yes, so far as our experience is concerned, just as good as clover or basswood, with this exception, that the bees sometimes bring it up and mix it with the light honey in the surplus cases the following season when they want more room in the brood chamber. This is not desirable.

Some time ago we recommended the use of Bisulphide of Carbon as a fumigator for destroying moths and the vitality of their eggs in surplus combs. In our experiment with the drug we had equal success whether we placed it above or below the pile of combs to be fumigated. From a scientific standpoint, however, it seems that the fumes being heavier than air the Bisulphide should be placed over rather than below them. "Gleanings" quotes Dr. Ott. Luggen, State Entomologist, Minneapolis, in "Farm Students' Review" as follows:

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"This compound, when pure, forms a colorless mobile liquid having a peculiar odor, and, when taken internally, is a violent poison. As usually obtained it contains impurities in the form of other compounds of sulphur, which give it a strong and extremely offensive odor, and when inhaled soon causes death. For the purpose of destroying gophers the crude bisulphide is better and much cheaper than the pure article. Care should be taken in using it as it is both inflammable and explosive. Its efficacy depends on the fact that its vapor is heavier than air, and, when introduced into burrows, it flows like water into all the recesses. This fact should be borne in mind in using it in sloping ground, as, unless the poison is introduced at the highest opening of the burrow, a certain part of the hole will remain free from it where the animal may take refuge."

THE prospective programme for the D. B. K. A. Meeting at Niagara Falls appears elsewhere in this issue, it is yet subject to some slight alterations, but every effort is being made to have it carried out as here announced. Mr. Couse has since written us to say that Professor James Fletcher, Entomologist and Botanist at the Experimental Farm, Ottawa, will likely be able to attend and give an address on 'The value of bees in Orchards.' This is a subject of no little importance at present owing to the attitude of some fruit growers who have been pleased to represent the insects as a "public nuisance" and who have sought

and suggested legislation to deal with them as such. Prof. Harrison of the Ontario Agricultural College has replied to Secretary Couse, signifying his intention to be present and to speak on the subject assigned to him in the programme. We understand that Mr. E. R. Root's stereopticon views are excellent and that they were a source of much interest and entertainment at the Chicago Convention. We are looking forward with pleasure to meeting Editor Root and seeing his views at Niagara Falls. Mr. W. Z. Hutchinson says that 'the social pleasures are now the paramount feature of a convention,' this is putting it strong and yet we must admit that there is a growing tendency in this direction. In the programme before us the executive have endeavored to place on the board for this convention a bill of fare wholesome and substantial and with just enough of spice to make it tasty and appreciated by all. We had a very excellent meeting last year at Toronto and a large amount of helpful information was imparted to those present. We are looking for a much larger number this year to share the good things with us. We hope to have a goodly number of visiting brethren from the United States besides those mentioned on the programme, our meeting place being right on the border. We will bid them a hearty welcome.

THE MEDICINAL VALUE OF PROPOLIS.

Dr. Miller in a "Stray Straw" in "Gleaning" quotes the German Bee

Journal "Leipziger Bienenzitung" that "a quantity of propolisin was sent to the British army in South Africa and wounds treated therewith healed promptly without suppuration, whereas the same kind of wounds were very troublesome previously, making many amputations necessary. When the supply of propolisin was exhausted the serious character of the wounds returned."

The doctor says that if the above report can be trusted propolis may yet come to be in great demand.

Bee-Keeping in Manitoba.

By S. A. Bedford, Superintendent Experimental Farm, Brandon.

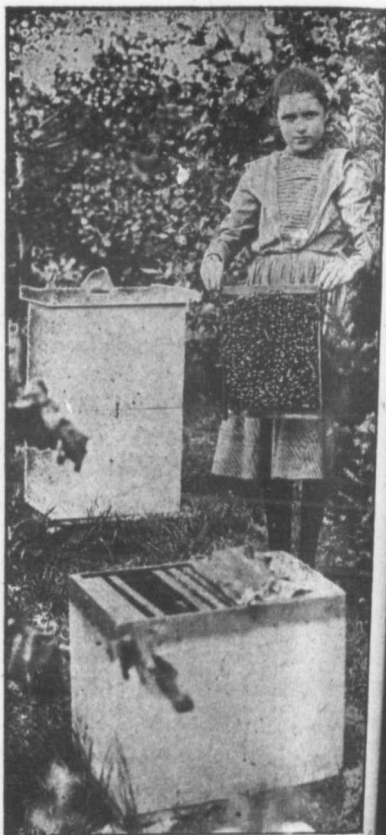
The impression has gone abroad that these useful insects cannot be successfully kept this far north. Some of the objections raised are the severity of our winters, the apparent scarcity of our honey plants, the cool nights and short summers and the prevalent stormy winds so general throughout the province.

As there are a number of very successful apiaries in the province, it is evident that there are ways and means of overcoming these real or apparent obstacles. In every country the successful bee-keeper must have a material fondness for the pursuit and enjoy at least a fair knowledge of bees and the proper use of the modern appliances which have of late years come into general use.

The beginner should during the slack time of winter thoroughly study the A, B, C of Bee-Keeping, or The Bee-Keeper's Guide, by Prof. Cook, and one of these books should

be referred to just before any particular work, such as hiving a new swarm, etc., is undertaken.

The first outlay need not be large, but should include one or more colonies



S. A. Bedford's Daughter, holding a frame of brood comb covered with bees, at the Manitoba Experimental Farm, Brandon, 1900.

ies of bees, three spare hives with frames, extractor, uncapping knife, bee-smoker, and a supply of comb foundation. The best time to purchase both colonies and supplies is during the winter months, delivery to be made by May 1st. Only strong

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colonies should be purchased, for a weak colony is dear at any price, particularly in the hands of a beginner.

Some of the most suitable locations in Manitoba are near wooded bluffs, in close proximity to ravines or near streams of running water. Such locations furnish an abundance of honey-bearing trees and plants and are very little exposed to the strong winds so distasteful to bees.

SPRING TREATMENT.

The colony should be set out just as soon as willows are in blossom, which is generally about April 20th in this province. The bottom of the hive should be cleaned off and a good warm quilt placed under the lid and the bees set facing the north or east, and only about three inches from the ground. A small tree or shrub at the south of the hive will afford shade from the mid-day sun in summer, and being without leaves in spring will not shade the hive when the full sunshine is needed. A day or two after setting out the colony it should be examined and all empty frames replaced; if short of stores, a little old honey or syrup should be fed to stimulate breeding. By giving the syrup in the evening, robbing will be prevented. A close watch should be kept so as to give increased room as required, and when necessary the surplus honey should be extracted, or a super added, if the tiering-up system is adopted. I am strongly of the opinion that working for extracted honey is the best plan for the beginner, comb honey requires more skill than a beginner usually possesses.

As a rule in Manitoba swarming begins about the end of June, and it is a good plan to have the new hive ready in its permanent location, with new frames filled with comb. As

soon as the bees are all clustered, place the hive under the swarm, remove the lid and shake the majority of the clustering swarm into the hive or before the entrance, place a lid on the hive and in a short time all will march in and start house-keeping in their new quarters. Occasionally a swarm will take a dislike to a hive and abscond. This can be avoided every time if a frame of unsealed brood is placed in the new hive before shaking the cluster into it. A second swarm or even a third one may be expected within a few days, providing the honey flow is abundant. These after-swarms will require some attention in the way of feed, particularly if late in the season.

BEE PLANTS.

Our native willow is generally the first plant visited by the bees in early spring and supplies both honey and pollen. This is quickly followed by our native blue-berry or Saskatoon; the wild plum is shortly a mass of bloom and the bees find abundance of feed among them. These are followed by our native maple, the small fruit blossoms, wild rose, etc. During July and August the grindelias and golden rods keep up the supply of honey. During one summer on this farm, the bees have been noticed to feed on sixty different varieties of blossom.

In an average season from fifty to seventy-five pounds of honey may be expected from each colony set out in the spring. The past two seasons have been the two most unfavorable for years and very little surplus has been saved.

The quality of honey in Manitoba is excellent and very uniform, varying very little between spring and fall.

WINTERING.

As soon as the ground is frozen up solid and the cellar has reached a temperature of 40 or 50 degrees, the bees should be moved to their winter quarters in the cellar, each hive placed not less than six inches from the floor and away from any partitions. Should any of the colonies be short of stores a frame or two of candy should be given them, remembering that each strong colony should have 30 pounds of winter stores and weak colonies in proportion. We have always protected the combs from mice by covering the entrance with coarse wire netting. This allows old bees to pass out and die and at the same time protects the hive from mice. The temperature of the cellar should be kept between 32 and 50 degrees all winter, and the less moisture in the cellar the better.

In conclusion, I might add that I am strongly of the opinion that bee-keeping can be made a success in nearly all parts of the province and that hundreds of colonies could be kept where one is kept now and would supply abundance of delicious food.

North-West Farmer.

Rubbing a hot laundry iron over top cloths diffusing the propolis is a preventative of bees gnawing them.

The five hundredth anniversary of the discovery of printing with moveable types is being celebrated this year in Europe.

The Russian army on a peace footing consists of about 896,000 officers and men; in war it would number about 3,500,000.

Questions and Answers

[Questions to be answered in these columns should be sent to us not later than the 15th of each month in order to insure their answer appearing in the following issue. We wish to make this department as useful to our readers as possible and a reliable source of information. For the present at least, the replies will be procured from various sources.]

QUESTION :—Some of my bees are very light and I am afraid that they will not have enough honey to carry the bees through to spring. What and how had I better feed them?

NEW SUBSCRIBER.

ANSWER.—Read article on "The Months Work" in September C. B. J. It is now becoming rather late to feed successfully; better this had been done a month ago. Make sugar syrup as follows :—20 lbs. best granulated sugar to each gallon of water; heat slowly, stirring the while until all the sugar granules are thoroughly dissolved. You may allow it to boil if you like, but be careful not to scorch or burn it. Give the syrup to the bees good and warm, using a "miller" or some such feeder that can be placed in a deep super and cover with a cushion or some heavy woolen material to maintain the warmth of the syrup. For the same reason, perhaps, it would be well to feed during the day, rather than the evening. W. J. C.

By far the best way of dealing with robbers is to carefully guard against the beginning of the work.

Honey poultices every two or three hours are recommended as a cure for Erysipelas.

The Month's Work

A. E. Hoshal, Beamsville, Ont.

The time for placing the bees in their winter repository varies. November is usually the month in which this is done, but the writer has known seasons when fine weather being continued into December no mistake would have been made in leaving them on their summer stands until the first of the month. However, as soon as the bee-keeper thinks that his bees have had their last flight, and settled cold weather has arrived, he should at once place them in their winter quarters. In judging of the time to do this it is better to err in putting them in too early, rather than too late.

A good cellar rightly fitted up makes the best kind of a winter repository. It must, however, be so arranged that the temperature can be constantly held at from 42 to 45 degrees Fah. all the time that the bees are in it, and it must be kept perfectly dark. These are the two most important factors in cellar wintering, but besides these the cellar must be dry, clean and fresh, and kept free from mice or other disturbing causes; not that we think that bees never winter where these conditions, or a part of them do not exist, but it is certain that the absence of these is a help towards good wintering, and when the vitality of the bees is being severely taxed, it may prove to be the best straw that breaks the camel's back.

Should the cellar be damp it may be necessary to keep the temperature a little higher than that mentioned, say about three degrees,

more or less, according to how damp the cellar is.

When many colonies are wintered together there will be a low murmuring or buzzing sound which is not heard in cellars where only a few are being wintered. Should this sound increase, and the bees become restless and fly out, the temperature is too high, should it increase and the bees remain closely clustered together the temperature is too low. To control this probably as good a plan as any is to arrange the cellar by banking, so that when it contains the bees and is tightly closed it will be a little too warm, then by having a darkened window to admit cold air from without, and a pipe or flue connected with a chimney to carry off the warm air from within the temperature can be maintained quite uniform, by increasing and decreasing as required the amount of air flowing in or out. So far as the bees are concerned very little ventilation is necessary, an even temperature being the most important factor.

A damp cellar if not too cold can be made dry, and so become a suitable repository for bees, as follows:—Strip the walls and lathe and plaster on these, leaving about an inch and a quarter to an inch and a half of clear space between the stonework and the plaster. Next cement the floor as follows:—Take out about four or five inches of earth, leaving it when finished with a slight incline towards the drain so as to carry off any water which may come in, fill in the same depth with small broken stone, or very coarse gravel, as that of earth taken out, pounding it down firmly. On top of this spread the cement, having mixed it rather stiff so that it will not run down amongst the broken stone or gravel, but lie on top, and when finished be inclined slightly towards the drain. Directly next the

drain leave a proper opening through the cement, communicating with the broken stone or gravel beneath, so that any water which through soakage or otherwise might get beneath the cementing will immediately run off into the drain, and not remain underneath the cement to gradually soak up into it and thus keep the cellar floor damp.

When putting the bees into the cellar the first hive should be placed about six or eight inches from the cellar floor, and on the top of this the others may be piled three, four or five high, and this continued until all are properly housed. The entrance of all the hives should be left entirely open, the cellar carefully closed and darkened, and a thermometer placed where it can be easily consulted. All that is necessary to be done throughout the winter is to occasionally sweep up the accumulation of dead bees from the cellar floor, and with the changes in the temperature outside to adjust the ventilators, so as to keep the temperature uniform, about forty-two or forty-five degrees.

For carrying the bees from the yard to the cellar a light hand barrow for two persons to handle is much more convenient than carrying each hive individually by hand.

The "Weed" Foundation in England.

Important Experiments.

The fact that bees will work on some foundation more rapidly than others is well known to most beekeepers. So pronounced was this in my own apiary in the season of 1898 that I determined to experiment with several makes of comb foundation. After a somewhat lengthy trial with five different makes I came to the conclusion that British-made "Weed" foundation is as near perfection as it is possible to get; in fact, until some

inventive genius gives us a ready drawn-out comb, I think we may be quite contented with "Weed." My experiments were spread over a whole season, in both brood-chambers and supers, and carried out with worker and drone-base foundation. In one case I put "Weed" in the two outer rows of a "section rack" of twenty-one sections, with the centre row made up of four of one and three of another make. The fourteen outer sections were stored and sealed perfectly before the centre were drawn out. As this hive was very strong, and fearing the bees might swarm, I raised the rack in the orthodox way, and inserted another under it filled with "Weed." These sections were drawn out, stored and capped in twenty days, while the seven in centre of top rack were still incomplete. Seeing, therefore, that there was little or no hope of getting these finished above, I took the top rack off and put "the unfortunates" in the centre row of another rack, filling up with sections having full sheets of "Weed," then slipped this between the remaining rack and brood nest, and left the hive until the end of the season. When they were taken off the outer sections were all stored, but only about three parts capped, and the seven in the centre were imperfectly capped, after having been in the warmest part of the hive the whole season.

In another case I put a rack of sections filled with ordinary foundation on a very strong colony. Here the bees absolutely refused to work in them at all, in spite of extra quilts and a bait of honey splashed about the foundation. I may here add this was the only time I failed to get bees to work in supers. A few days after the bees swarmed. I cut out the queen cells and returned swarm in the evening, removed the section rack and put on another filled with "Weed"

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foundation; two days after several were partly drawn out, and the bees began storing in them. I also tried shallow-frames with worker and drone-base foundation, and proved to my satisfaction that a $5\frac{1}{2}$ in. by 113-16 in. frame filled with full sheets of "Weed" drone-base foundation is the best for extracting honey. In fact, I have used about 300 of them in my apiary this year, and to-day have been fumigating them with the fumes of burning sulphur and carbolic acid preparatory to packing them away for next season.

The above are from a series of experiments of my own, and the old adage still holds good:—

"One man's word is no man's word,
Justice needs that both be heard."

T. H. POWELL, Castle Acre.
—British Bee Journal

Ontario Bee-Keepers' Association Convention.

Dear Sir:—Kindly again notify the readers of the Canadian Bee Journal that the twenty-first annual meeting of the Ontario Bee-Keepers' Association will be held in the council chamber or town hall, Niagara Falls, on Tuesday, Wednesday and Thursday, the 4th, 5th and 6th of December, 1900.

All Bee-Keepers of Canada and the United States are extended a very cordial invitation.

It is expected that the meetings will be very pleasant and profitable as those intending to give addresses and papers are among the leading bee-keepers of the country.

The Programme as arranged is as follows:

Dec. 4th 2 p. m. Reading and discussing minutes of last meeting.

2.30 p. m. The President's address, (Mr. C. W. Post.)

Mr. J. W. Sparling, Bowmanville,

will open the discussion on the address.

3.30 p. m. Paper by Mr. R. H. Smith, of St. Thomas, on "Moving Bees"

Mr. F. A. Gemmell, Stratford, to open the discussion on Mr. Smith's Paper.

Question Box—To be opened by Mr. J. B. Hall, Woodstock.

Dec. 5th 9 a. m. Paper by Mr. W. J. Craig, of Brantford, on "The uses and abuses of Bee-Literature."

Mr. J. D. Evans, to open the discussion on Mr. Craig's paper.

Official Reports.

10 a. m. Paper by Mr. M. B. Holmes, of Athens, on "Queens."

Mr. W. J. Brown, to open the discussion on Mr. Holmes paper.

11 a. m. Mr. F. A. Converse, Superintendent of Live Stock Dairy and Agricultural Products at the Pan-American Exposition, Buffalo, will address the meeting on making an exhibit of Bees and Honey at the exposition in 1901.

2 p. m. Paper by Mr. W. Z. Hutchinson, of Flint, Michigan, U. S., on "How little neglects effect the profit of the apiary."

Mr. A. E. Hoshall, to open the discussion on Mr. Hutchinson's paper.

3 p. m. Election of officers.

Question Box opened by H. G. Sibbald.

5 p. m. Paper by Mr. H. G. Sibbald, of Cooksville, on "Wintering bees in and out."

Mr. Jacob Alpaugh, of Galt, to open the discussion on Mr. Sibbald's paper.

7.30 p. m. Mr. E. R. Root, of Medina, Ohio, U. S., will give an address on "Bee-Keepers I have met and Apiaries I have visited" with stereoptican views. (Mr. Root supplies his own apparatus.)

After Mr. Root's address there will be a supper given in honor of the

President and ex-Presidents of the association. It is hoped that all the ex-presidents who have assisted the association to grow out of its infancy may be able to attend.

Dec. 6th, 9 a. m. Mr. John Fixter of the Experimental Farm, Ottawa, has been invited to give a paper on experiments he has made.

Mr. P. E. Elwood, of New York State, has been invited to give a paper.

Prof. Harrison of the Ontario Agricultural College, Guelph, has been invited to give a paper, on experiments he has made with Foul Brood-germs in Honey.

Prof. Shutt, of the Experimental Farm, Ottawa, may give a paper on "The percentage of water in the different kinds of honey."

The four gentlemen last named have not yet definitely promised to be present but if we are fortunate enough to have them, there may be some slight change in the programme to give them a suitable time.

Arrangements have been made with the Savoy and Windsor hotels at \$1.50, and the Imperial at \$1.00 per day. All of these hotels are first class. There will also be the usual arrangements made with the different railway companies for special rates, and all persons attending the convention should purchase a single fare ticket from their local Agent and obtain from him a delegates certificate, for their returns to be signed by the secretary. If sufficient number of certificate holders are present the return fare will only be one third. Besides the attractions of an excellent programme the convention being held at such a noted and popular place is likely to draw a very large attendance.

Any further information desired

regarding the above will be gladly furnished by addressing.

Yours Truly,
WM. COUSE, Sec'y
Streetsville, Ont., Oct. 25th.

Bees Can't be Successfully Wintered on Honey Dew.

Written for the C. B. J.

In August, 1884, the leaves on the basswoods, elms and hickorys in my locality were covered with honey dew and the bees filled the brood chambers just as full as they possibly could of the off colored stuff. I did not like to risk the wintering of all my bees on honey dew, when I had plenty of sealed clover honey in the top stories, which I had saved to winter them on, but I thought I could safely do some experimenting along this line and go through the winter without any loss. I had 85 colonies, and in the fall, I took all the combs out of 65 brood chambers and placed from 5 to 6 combs of sealed clover honey in each hive and put a division board on each side of these combs. I then packed the colonies with forest leaves. I then fitted up 15 colonies with 5 combs of sealed honey dew each, (which I had taken from other colonies) and after placing division boards on each side of the combs I packed these colonies with leaves also. I then fixed up the other 10 colonies with 3 sealed combs of clover in the centre and a comb of honey dew at each side and the division boards, packing these colonies in leaves the same as I did the others. The 65 that were given the sealed combs of clover honey wintered fine and were very strong with bees in the spring and gave a large yield of honey in 1885. The 10 that had mixed stores dwindled down very much in spring and gave me but very little honey that season. The colonies that I tried to winter on nothing but honey

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dew soiled their hives very badly and the most of them died before spring and the balance "petered out" and were gone before the middle of April.

When the clover season is nearing the end I leave five sealed combs in each top storey for winter stores and extract from the other super combs until the season ends and when the time comes to prepare my bees for winter I have 5 combs of choice stores to put into each brood chamber for the bees to winter on. If I had left all the colonies to winter on honey dew in 1884, when the brood chambers were filled up full with it, I would have lost nearly all of my bees. It don't pay to try to winter bees on poor stores.

WM. McEVoy,

Woodburn Oct. 29th, 1900.

Extracting Wax from old Combs.

Mr. J. F. Munday, writing on the above subject in the "Australasian Bee-Keeper," recommends the following method which may be useful to many who do not wish to go to the expence of any of the numerous modern wax extractors or presses:--

"Cut a piece of strong wire cloth about an inch larger than the inside of the boiler in which the combs are to be melted. Turn down at right angles about half an inch of the wire cloth all round the edge to make a strainer that will fit easily inside the boiler. Then cut a board the same shape as the boiler, but about $1\frac{1}{2}$ inches smaller in dimensions. Across this board and at right angles with the grain of the wood, nail some half-inch straps of the wood about three inches apart and parallel with each other. Make some holes about one inch in size in the board between the strips of wood. Half fill the boiler with water. Put in the old combs. Put the board on top of the combs. When the combs are melting take out

the board and stir them up with a stick. Add more combs as the others melt. When a sufficient quantity is quite dissolved, put in the strainer (but edge downwards), put the board on top of the strainer so that the strips nailed across the board are next to the strainer. Sink the board about one inch beneath the surface or deeper by placing weights on it (I use bricks). Then when the wax has risen to the surface skim it off; then take out the strainer and stir the stuff in the boiler well. Sink in the strainer as before; wait about 15 minutes then skim it again. Very little wax will be left after the third skimming, and that little can be obtained the next day if the strainer be left submerged in the boiler till its contents are cold. As the wax is skimmed off it might be strained, but I do not do so then. I prefer to remelt the cake obtained and then strain the wax through a flannel bag."

Kitchen Weights and Measures.

A List the Cook Should Keep Close at Hand or Commit to Memory.

Four teaspoonfuls of liquid make one tablespoonful.

Four tablespoonfuls of liquid, one gill or a quarter of a cup.

A tablespoonful of liquid, half an ounce.

A pint of liquid weighs a pound.

A quart of sifted flour, one pound.

Four kitchen cupfuls of flour, one pound.

Three kitchen cupfuls of cornmeal one pound.

One cup of butter, half a pound.

One solid pint of chopped meat, one pound.

Ten eggs, one pound.

A pint of brown sugar, thirteen ounces.

Two cupfuls and a half of powdered sugar, one pound.—November Ladies' Home Journal.

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