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WHOLE No
465.

How to Make Money Producing Extracted Honey

J. F. McIntyre at the Los Angeles Con-
vention of the National Bee-Keepers' Association.

To make money producing ex-
tracted honey it is necessary—

1st, to produce a large quantity
of high-grade honey; and

2ndly, to sell it for a good price.

Starting out to accomplish these
is the first thing to be consider-
ed—the location, or locations, as it
is necessary to keep more than
one apiary if you make very much

If you can find a good field
near you you can keep a number of
hives around your own home
without overstocking or
disturbing other bee-keepers, you
are fortunate. I shall not attempt to
tell you where to find this "Eldor-
ado" because every field has some
good spots, and you might not think
of them when you find them out. I will,
however, name some of the things to
be taken into consideration in select-
ing a field.

The quantity and quality of the
honey that can be produced, an open
road or short distance of transportation to market,
the healthfulness of climate,
the absence of insects, excessive heat in
summer or cold in winter.

I have found your "Eldorado," it
is not so easy to start with a hive you
will regret. I have found noth-
ing better than the 10 frame Lang-
stroth with an unbound zinc queen-

excluder between the super and
brood-chamber, and a painted duck-
cloth under the cover. All combs in
the brood-chamber should be built
from full sheets of foundation.

It is also important to stock your
hives with the very best stock of
bees to be found in the world. I
can only recommend that you buy
some queens from every breeder
who claims to have superior stock,
and breed from that which is best.

A system of management should
be adopted that will prevent exces-
sive increase, and keep both the
super and brood-chamber full of bees
during the honey-flow.

Honey should not be extracted
until it is ripe, otherwise it must be
evaporated to prevent loss from fer-
mentation. It requires experience
to tell when honey is ripe enough to
extract. In some seasons, and in
damp locations, the nectar from the
flowers is very thin, and the honey
will often ferment after it is all sealed
over; at other times, and in dry
locations, it is sometimes thick
enough to keep, when the bees com-
mence to seal it over. In most
locations it is about right when half
sealed.

It is economy to have the best
tools to work with. At my Sespe
apiary, this season, my daughter
Flora, 19 years old, extracted all the
honey, 10 tons, as fast as a man
could cart it in; but she had an
8-comb extractor driven by water
power to do it with. At an out-

apiary it cost me \$3 per day to get the same amount of honey extracted with a 6-comb Cowan extractor. Two good honey carts, carrying 4 supers, or 32 combs of honey, at a load, are necessary to bring the honey in from the apiary, one cart being loaded in the apiary while the other is extracted in the honey-house.

The capping-box should be large enough to hold all the capping from one extracting, to give time for the cappings to drain dry before the apiary is ready to extract again. Bingham honey-knives, kept clean in cold water, are the best to uncap the honey until we get a power-driven machine that will uncap both sides at one operation.

I use smokers with 4-in fire-tube.

Plenty of tank-room is necessary to give the honey time to settle and become clear and sparkling before it is put into cans or barrels, and to prevent delay in extracting, by having to wait for cans or barrels to put the honey in.

Having a field and apiaries, with machinery to run them, and a good system of management, we will now consider the marketing of the crop.

If the cost of producing a pound of honey is 4 cents, it is easy to see that the man who is obliged to sell all of his honey at 4 cents will soon conclude that bees don't pay, and get out of the business. To make money, he must be able to hold his honey until the market price rises, for every cent he makes is in the difference between the cost of production and the price at which he sells. Organization undoubtedly helps to hold up prices. The organization of the California National Honey-Producers' Association, together with a medium crop instead of a full crop, as was expected early in the season, has kept the honey

market from going to pieces in California this year; but organized weakness is not strength—it is only a bluff. The Steel Trust has been considered a pretty strong organization, and yet it has not been able to prevent a depreciation of its stock to the extent of over \$300,000,000 in the last few months. Why has this thing happened? Too many of its members had to have money, and steel stock had to be sacrificed to get it.

When the holders of any stock or commodity are financially weak, the price of that stock or commodity is bound to fall; but when they are all strong the price is equally sure to rise.

When a large crop of honey is harvested the bee-keepers, or a large majority of them, are financially weak, and while they are making sacrifices of their honey to get money the price is bound to rule low; but their honey, when sold, goes into the hands of strong men, and soon the price begins to rise. If you have money to live on, and no debts to pay, just wait until it gets to the highest price, then sell.

J. F. MCINTYRE.

Mr. Geo. W. York, in the absence of the writer, then read the following response by E. S. Lovesy:

I fully agree with Mr. McIntyre at every point he advocates except the queen-excluders. I can get more honey by giving the queen free range, as I run entirely on the division plan, giving the bees plenty of room; and if the queen should get into the surplus boxes, I can make good use of the brood, making new colonies or building up. I believe in building up strong colonies before I divide, as the results are disastrous to divide and attempt to build up afterward.

I believe with Mr. McIntyre in the careful selection of a location, 10-frame hive, a liberal use of foundation or drawn comb, a good system of management that will keep the hive full of bees; and all honey should be properly extracted and ripened. If these conditions are complied with, as a rule it can be held for the highest possible price.

I also agree with Mr. McIntyre that the bee-keepers are in need of a stronger organization. We should not forget that "in union is strength;" lack of which may cause our energy, at least, to be partly lost.

I regret that conditions are such that I can not be at the convention.

E. S. LOVESY.

it right off, sleek as a razor would do it, and does it much quicker than a hot knife.

Mr. Wood - Do you use a long knife?

Mr. McIntyre—I would not use anything but a Bingham knife.

Mrs. D. A. Higgins—I would like to ask Mr. McIntyre, whether he can un-cap well-cured white or black sage honey with a cold knife?

Mr. McIntyre—We do not uncap any other kind—very little of any other kind. This is the honey (sample produced). You can turn it up for some time on a cold day before it will come out. It seems very queer that any one should run up against any difficulties. The hot knife, according to the way I have seen it used, will run half way up a comb or so, as far as it will go; but our cold knife will uncap several combs.

Mrs. Higgins—I find it will uncap one comb; that is all.

Mr. McIntyre—I always cut from the bottom up, because the comb is leaning a little that way, and as we run the knife it drops right clean.

Frank Benton—Since Mr. McIntyre has had a great deal of experience in producing extracted honey on a large scale, I would like an expression from him as to how the different races of bees compared. He is not restricted in extracted honey to the kinds of bees that will produce white combs, since, of course, capping comes away anyway, and the honey from one is as good as the other.

Mr. McIntyre—I commenced bee-keeping in California with some stock I bought from Dr. Gullup. I brought his apiary here, and we had some very nice imported Italians. Later I got some Cyprian stock. I crossed these, and for extracted honey I find that I can get more honey with some

L. L. Andrews—I would like to ask Mr. McIntyre what he thinks of the hot knife as compared with the cold knife in extracting?

Mr. McIntyre—I am sorry to say that while I have seen it done I have never uncapped any honey in my life with a hot knife, but after putting the cold knife into the hands of others and, showing them how to use it, they would never use the hot knife again.

George M. Wood - I would like to ask Mr. McIntyre to explain his method of using the cold knife?

Mr. McIntyre—I have a little wooden keg usually, because it does dull the knife when you throw it. Three knives are about all you can handle. We take a knife out of the water all soaked, clean and sharp, and put it to one side and the capping comes off, then up the other side of the comb. You can use it on several combs that way. Whenever a knife gets dirty—the least bit of wax on it goes right in to soak off, and when it comes out it is wet, clean, and free from honey, and, being turned up the comb and cuts

Cyprian blood than with the Italians alone. They have really proved to be the strongest honey-gatherers I have had. I do not like the stinging qualities of the pure Cyprian. I have crossed them somewhat with Italian-hybrids. If I had crossed them with the Carniolans, which, I believe, is the favorite cross, they would be pure hybrids. These Italian crosses with Cyprian have proved to be best bees in my hands.

J. F. Flory—Are they not crosser than the Italians?

Mr. McIntyre—Yes; I think you can not add Cyprian blood without adding a little temper. I think probably there is a little Cyprian blood in the queens. Those are selected from may be 10 to 20 generations bred in my own apiary, and I can not tell whether there is Cyprian blood in a queen, but I pick her for her business qualities. I would not take a queen that would sting me all to pieces; I would not breed from such a queen. I want them to be easy to handle, nice in color, and I want them to be great honey-gatherers. Those three points are about all I look to. I cannot ask a queen whether she has any Cyprian blood in her or not, if she is easy to handle.

Geo. L. Emerson—I have not much to say, but I was interested in this cold-knife proposition, and thought perhaps we might get a little more information. Mr. McIntyre is a very large honey-producer. We have never been able to use a cold knife with any degree of satisfaction whatever. We seem to have a diversity of opinion here. There may be some that think they will have to change and use a cold knife instead of a hot knife. If they are going to do that they ought to know how to do it. If there is any way Mr. McIntyre can show me how to get away with

that gasoline stove, I would like to have him do so; but we must have the same quality of work, even if we are a little warmer in doing it. I believe that is all.

T. O. Andrews—I was going to say if there was crossed blood in those queens Mr. McIntyre sent me they are the most uniform I ever got together. So I thought they were pure Italians.

H. H. Hyde—I would like to know if Mr. McIntyre has ever used shallow frames for extracted honey 5 $\frac{3}{8}$ inches deep.

Mr. McIntyre—No, I have had some frames 7x17. They would do very nicely to extract from, but they did not suit me for brood-chamber so I have only the 10-frame Langstroth. We usually manage to get them down near the super, which is so much heavier; get the combs out and extract them about from eight to ten days, according to the way the honey flows.

Mr. Hyde—We have used both shallow and Ideal supers, and we have concluded we can handle more conveniently, and quicker, by using the Ideal super for extracted honey and, in extracting, we have a large extractor that takes two frames each basket. When we come to uncapping we can uncapping one side, and it not go over it twice. But the principle is in not using the Porter escape at all. One man simply takes hold of the super, the first man smokes it freely. One man gives it a wobble. In a few minutes we take it in the house, and then can take the super about as quick as a 10-frame, and we consider it quite a gain also in uncapping.

Charles C. Schubert—I would like to ask whether Mr. McIntyre uses queen-excluder? also whether he has entrance to the super above the

Mr. tions. and tri the b enough them 1 smoke made brush does i emptie tried d I thou was no frames swarms time fil John ask Mr. are no same co Mr. combs. and p empty hive. A. A. to ask D is in reg between Mr. N years ti non-swa swarmer their hi other ye of hon would ju colony v are not ; near bee are very Mrs. J with bee that our store mo you accc Mr. M colonies other col

Mr. McIntyre—No, to both questions. I bought 50 Porter escapes and tried them to that extent, and the bees did not get out quick enough to suit me, so we went after them with wet brushes. We use a smoker and a wet brush—a brush made from manilla rope. I take a brush about five inches long. That does not hurt the bees any, and empties the supers quickly. I have tried different sized brood-chambers. I thought the 10-frame Langstroth was not big enough and tried 60 frames at once, but when the colony swarms the swarms put in too much time filling up the brood-chamber.

John F. Crowder—I would like to ask Mr. McIntyre where the apiaries are not diseased do you put the same combs back?

Mr. McIntyre—I always change combs. We take the empty ones and put on top of the hive. These empty ones are from some other hive.

A. Arthur Hansen—I would like to ask Mr. McIntyre how that cross is in regard to swarming—the cross between the Italian and Cyprian?

Mr. McIntyre—Well, I have some years thought I had a pretty fine non-swarming lot of bees. They swarmed hardly any, but filled up their hives in grand shape. Then in other years, when we have had lots of honey coming in, the apiary would just go wild, and nearly every colony would swarm. I think they are not as bad as pure bees. I can rear bees that never swarm, but they are very poor.

Mrs. J. B. Cherry—My experience with bees showed me for two seasons that our poorest hybrid black bees store more surplus honey. How do you account for this?

Mr. McIntyre—I have seen hybrid colonies that would probably excel other colonies in the apiary—may be

any other colony in the apiary—and I suppose every bee-keeper has seen the same thing. But I never made a practice of breeding from that hybrid colony, for the simple reason that if one should send out such queens as that over the United States, they would soon get a bad reputation. If everybody were writing back, "The bees you sent me were hybrids," it would hardly do. I do not deny but what the black blood in some colonies seems to have no detrimental effect, and yet, in other colonies—I have seen, may be, 20 cases where hybrids were very poor compared with the strain of bees I have.

Mr. Andrews—I want to say in reference to that knife proposition, that I first got the idea of the cold knife from Mr. Wilder. I found by keeping the knife very sharp, and then cutting toward the top wall, I could always uncup two combs with the hot knife while I was uncapping one with the cold knife; so I went back to the hot.

A Member—I would like to ask if you raise the combs from underneath the queen-excluder, and place other empty combs and foundations below to give the queen more room? I find they swarm a great deal unless I do that, and that makes lots more work.

Mr. McIntyre—No, not as a rule. My practice is to leave the super full of honey on the hives in the fall if possible, and in the spring these colonies will breed up lively without any assistance from me. I go over to see the queen, clip her wing, and they get very little more attention until somewhere along about the first of April. They will swarm, a good many of them, having the queen-excluder on. I catch the queen, set the hive back, and put the brood-chamber, filled with comb foundation,

in the place where the old one stood, and let the swarm go back. Then I have every queen in the brood-chamber. That is the main reason why I use queen-excluders. They hinder the brood some in going back into the supers, but I don't have second swarms. If I have some queen-cells ready to hatch I put one right in. The queen hatches and finds there are not enough bees to keep the brood warm, she tears the cell all down. A little later in the season, when I get my apiary full that way, I take the next lot, brush all the bees off of these brood-combs, and put one set of them with each one of these. I don't put it all on, mind you, because once in a while I find these have supers full of honey. Then I take the honey and put it above, and put the brood below. In that way every one of my colonies stores several supers full of honey every season, I do not have a lot of little, weak swarms where the bees do not get into the supers.

Mr. Gilstrap—I have worked with bees in Central California, Southern California, and in Colorado, and I find location and quality of honey produced has a great deal to do with the use of the hot or cold knife. Lacking 15 cans we took off 9 tons of honey last year, and never used anything but a cold knife. I find keeping the knife sharp has a great deal to do with it. There are only two locations where I have worked with bees where I have found the hot knife necessary. Where the honey is not very stiff the cold knife can be used very satisfactorily.

J. A. Delano—My experience with the hot knife and cold has been during the last 15 years I have been in the bee-business. I started in with the idea that the cold knife was a good plan. It saves a fire in the honey-house, the heat and bother.

Another reason I thought it a good plan, was because several of the large bee-keepers were using the same plan. Mr. Charles Graham, one of the largest bee-keepers, used that plan himself, keeping the knife sharp, and running it on the same plan as Mr. McIntyre. But I found, after I had used it for about five years, that if we had boiling hot water to put our knives in, and kept them sharp, we could accomplish probably twice as much, and do the work a good deal easier. In this State we have different kinds of honey in different localities. With sage honey you can use a cold knife very well, as there is dust you have to wash off with a cloth; but I find in general practice the hot knife takes the lead in my experience. Mr. Graham has also done away with the cold knife, and taken up with the hot-water process. In extracting from an apiary where the honey-flow is coming fast, in sage honey, and where a couple or three men have to handle so many combs in a day, a cold knife would be at a disadvantage. At least I think it would be with us. When we take off a ton, or ton and a half, with two or three men, we must use the easiest plan. Along this coast the cold knife works very successfully because the honey is thinner, and you will find it will cut easier, but you go inland, where it is drier, and it is harder to run a cold knife.

J. S. Harbison—I have inspected quite a large quantity of extracted honey, and I find one of the evils is the excessive use of smoke in handling the combs. Much very choice honey has been ruined in that way, so much so that a delicate taste would reject it on account of its bitter taste. You cannot be too careful with reference to this matter. Honey is very sensitive to acquire a bad odor, as much as butter. Another thing,

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there is too much honey extracted in an unripe state. It will never be the same honey as when ripened in the hives. These two things are something you must give more attention to, or else extracted honey will fall into disrepute. Carelessness in these matters is one that has prevented a more general use of honey. I have had much experience along these lines, and I caution you about using smoke, even on comb honey, because honey is always sensitive, and will acquire a bad taste. The importance of these matters seems to have been overlooked by a great many honey producers. I warn you in these particulars. You must have your honey in as nice shape as Nature produced it. Much fine honey has been ruined by carelessness in this direction, so much so that I would reject much sage honey because of its bitterness.

(Continued next month).

Annual Meeting of the Ontario Bee-Keepers' Association.

The annual meeting of the Ontario Bee-Keepers' Association will be held in the Town Hall, Trenton, on Tuesday, Wednesday and Thursday, Dec. 1st, 2nd and 3rd, 1903. All persons interested in the bee-keeping industry are cordially invited to attend.

The following program has been arranged for by the Executive:

TUESDAY

2 p. m. — Meeting called to order and minutes.

2.30 p. m.—Paper by B. O. Lott, Anson, Ont., on "The Advantages of Apiaries." M. B. Holmes, Athens, Ont., will open the discussion.

4.30 p. m.—Question Drawer, Morley Pettit, Belmont, Ont., in charge.

Evening Session, 7.30 p. m. — Report by Honey Exchange committee

and a debate on same by committee named by the President.

9 p. m. — Question Drawer, C. W. Post, Trenton, in charge.

WEDNESDAY

9 a. m.—Paper by Morley Pettit on "Shook Swarms." H. G. Sibbald will open the discussion.

10 a. m.—Report of Bee-Keeping Experiments at the Experimental Farm Apiary, by John Fixter. J. L. Byer will open the discussion.

11 a. m.—Address by F. W. Hodson, Agricultural Dept., Ottawa, on "The Benefits of Organization and the Extension of the Markets."

2 p. m.—Address by F. T. Shutt, M. A., F. I. C., Chemist Dominion Experimental Farms, Ottawa, on "The Storing of Comb Honey and Experiments in the Preparation of Vinegar from Honey."

3 p. m.—Election of officers.

4.30 p. m.—Open Parliament.

Evening Session, 7.30 p. m. — Address by C. C. James, Deputy Minister of Agriculture.

8.30 p. m. — Addresses by invited guests.

9.30 p. m.—Banquet.

THURSDAY

9 a. m.—General business.

10 a. m.—Unfinished business.

Any one having any new inventions or practical fixtures in beekeepers' supplies is invited to send or bring them to the Convention for exhibition.

There will be a \$1.00 per day rate for those attending the Convention at the leading hotels, The Bleeker House, St. Lawrence Hall and the Hotel Aberdeen.

All delegates should purchase a full price fare ticket from their railway agents and obtain a standard certificate for return rates.

WM. COUSE, Streetsville,
Secretary.

Drone Comb.

"Good morning," Mr. Doolittle. I have come over to have a little out-of-season talk with you. It is like this: I have been trying all summer to get over here, but have been so busy that I could not get here till now."

"Well, Mr. Smith, the old saying is, 'better late than never,' so perhaps we can talk on an out-of-season topic to advantage at this time. What was it you wished to talk about?"

"Can you tell me why my bees built so much drone comb last summer? I hiving my swarms I gave them one or two combs already built, by way of a starting at housekeeping with them, and I find now in getting them ready for winter, that fully half the comb they built was drone comb. Can you tell me how I can prevent this in future?"

"Yes, it is easily told. Put in full frames of nice worker comb, filling the hive full of these; or fill every frame set in any hive full of foundation. See how easy it is?"

"Y-e-s. But I have not got the worker comb, nor do I feel like spending so much money for foundation. What I want to know is how to make the bees build worker comb. Can't you tell me something about how comb-building is conducted, so that we may find some solution of this difficulty?"

"Perhaps so. All observing apiarists know that, as the day of swarming draws near, the queen ceases her prolificness so as to fly and go with the swarm. Otherwise she could not; for if a queen is taken from a colony when she is

most prolific in egg-laying she can not fly at all."

"Is that so?" This is something new to me, as I have been keeping bees only two seasons. Then the reason she lays so few eggs just before the swarm issues is that she may be able to fly with the swarm?"

"This is one of the reasons; and another is that she need not be inconvenienced with an over-accumulation of eggs on arriving at their new home before any comb can be built: for it takes some time for the bees to get started in a new home when they enter some home not provided for them by men. And so we find that all queens do not become fully prolific again after swarming till they have been in their new home some three or four days. During this time comb is being built quite rapidly where honey is coming in plentifully from the fields, and under such conditions the bees build comb faster than the queen occupies it with eggs; but where the honey comes in slowly the queen is able to keep up with the comb-building by depositing an egg in each cell as built."

"But what has this to do with the matter of drone comb?"

"When, for any reason, the queen does not occupy the cells with eggs as they are built, and honey is coming in plentifully from the fields, the bees, to economize, commence to build store comb, which is the drone size of cells, and is mainly filled with honey the first season, so that the trouble from this store comb does not usually come till the next spring when, being emptied of the honey, it is used to rear drones in."

"I think I begin to see now, for honey was coming in rapidly at the time these swarms were filling their hives."

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"Yes, undoubtedly. But let me go a little further: If, in addition to the above, we give the swarm a frame or two of comb at time of hiving, as you say you did, we make matters doubly worse, in that we furnish a place for the queen to deposit nearly all the eggs she would naturally lay the first week after hiving, consequently nearly all the comb built by the bees during this time will be for store comb, or of the drone size of cell, as you furnished for the queen all the room in which to lay that she needed."

"That looks reasonable to me now; but I never thought but that I was doing the right thing when I gave the two combs. This helps me much; but, if you have no objections, tell me how to manage in this matter."

"The swarm is hived in a hive of the same size as the one it came from, the same being full of empty frames, each having a starter of comb foundation in it, the same being about half an inch wide. They are left thus for a day or two till a little start is made at comb-building. At this time half of the frames are taken out, leaving those having the most comb built in them, and the hive contracted to a size to suit the frames left by means of dummies or division-boards, and at the same time putting on the sections, some of which have combs for baits in them."

"What is the object of this?"

"Preparing the hive in this way gives the bees plenty of room above to store honey, thus not crowding them in the brood-chamber, so that only comb of the worker size is built below, and that only as fast as the prolificness of the queen demands it. As her ability to lay increases, more comb is built; so that at the end of the season I have the hive filled with

nice worker comb and a good supply of honey in the sections."

"But is there not considerable work to this?"

"Yes, some work, and so there is to anything well done. By the above plan three important items are secured—lots of section honey, no drone comb, and a hive full of nice straight worker comb; and as these latter will, with careful usage, last nearly or quite a lifetime, it well pays to spend a little time on them while they are being built."

But are you not troubled by the queen going up into the sections and laying there, when you work as you have been telling?"

"I used to be before the advent of thin foundation for sections, for then we had to rely on comb built in the sections by the bees, which was the drone size of cells more often than otherwise; and if the bees wanted to rear drones for any reason, the queen would go up into the sections and lay in the drone comb there. But if each section is filled with thin worker foundation, as it should be, there is no incentive for the queen to go into the sections from any drone comb in them. But if you have fears of the queen going above, a queen-excluding honey-board will prevent her doing so entirely."

"I see the matter much differently than when I came, and shall try to profit from what I have learned. Good day." — Conversations with Doolittle in Gleanings.

We have only one life to live, we ought, therefore, to do the best possible with it. We pass through this world only once; we ought to gather up and take with us the things that will truly enrich us—things we can keep forever.

THE
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Editor, W. J. Craig.

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Formalin and Foul Brood.

Mr. C. H. W. Weber, of Cincinnati, whose apparent success in treating foul broody combs with formalin gas we quoted in the May issue of the C. B. J., gives his further experience in a recent number of "Gleanings in Bee Culture, as follows:

"In treating foul-brood colonies with formaline gas it has transpired that, after a seemingly sufficient fumigation, in some instances the disease had made its reappearance. Regarding this I beg leave to offer following explanation and reasons:

When taking a foul-broody frame out of an affected colony, we notice upon examination that the dead larva lies on the lower side of the cell. In order to learn how the same progressed, return the frame to the colony. After eight or ten days, taking the same out again, we notice that the dead larva has been changed into a ropy, gluey matter, and still resting on the lower side of the cell. After some length of time we notice that this ropy or slimy matter has nearly all dried up; in fact, after a first examination it appears that everything has disappeared; the comb seems to be in good condition;

but, after closely examining the same by holding the comb so the light penetrates the cell, you will observe that the lower part of the cell appears as if coated with a brown tinge, which is nothing but the aforesaid slimy matter. When dried up, if anything else should extend from the coating the bees will clean it away. As this slimy matter has dried up and become as hard as the wax from which the cells are constructed, the question arises, "What has become of the foul-brood germs which were in this gluey matter?" To this I offer the following solution:

After this matter has dried up, the germs on the surface, being readily exposed to the fumes of formaldehyde, have been easily killed; while those beneath the surface, or protected by this hard matter, have not been killed, and, with the advent of hot weather, soon make their reappearance. This proves that formalin gas will kill the germs it comes in contact with. It has also been proven that honey-combs in infected hives never used for brood-rearing, when well extracted of honey, and then strongly fumigated, and given to new healthy swarms, did not show any sign of the disease during the fall, spring or summer. To hatch bees it takes a temperature of about 98 or 100 degrees. It seems that this heat does not affect the dried-up matter, as the trials that I made last year from the end of August, during September and October, did not show up any signs of foul brood in the early part of spring, until the extremely hot weather set in, which seemed to melt this dried-up matter, exposing the germs, and, consequently, bringing on a reaction of the disease. This has been experienced by nearly every one who has experimented with formaldehyde; and I therefore recommend the destruction of brood combs wherein any larva died and kept

ing as described before, and saving only such combs as showed no disease whatever; also the honey-combs by fumigating the same strongly with formaldehyde."

This is not so encouraging as Mr. Weber's first report, at the same time we must admit that if even the empty combs can be so disinfected that they may be used with perfect safety interchangeably on healthy colonies, a great boon has been gained to beekeepers by the discoverer.

The operation is so simple and inexpensive that all empty surplus combs might be fumigated once a year.

The Editor of Gleanings in Bee Culture, says:—

"Foul-brood matter, whether dried or whether in a semi-liquid gelatinous condition, is always dangerous. While we may assume that the fumes of this drug, if they can reach the actual microbes, will kill them, yet it is apparent that, if they are covered with wax or honey, or any enveloping material, they will be protected; and as soon as the protection or covering is removed, the active principle will develop bringing out the disease as before. I should somewhat question whether it would be safe to rely on fumigation for disinfecting combs loaded with honey. If the combs were extracted, and then fumigated after being cleaned by the bees, I should presume the treatment would disinfect them. I should suppose, also, that a good fumigation of actually diseased combs would check the disease. But my impression is, that if we know more about it, it would be safer to burn or melt all diseased combs, fumigating all empty ones—empty of brood and honey. If the formaldehyde will do no more it will then save a large loss, and at the

same time be putting up an additional safeguard against the reappearance of the disease.

EDITORIAL NOTES.

The Nova Scotia Fat Stock Show held at Amherst, N.S. has made a new departure this year. Prizes will be given on displays of honey, comb, extracted and granulated, and addresses will be given on "Judging Honey" "The Value of Honey as a Food" etc. Mr. R. F. Holterman has been appointed by the Government to judge and give the addresses. The meeting will be held in the second week in December.

It seems about as difficult a matter for Irish Bee-keeper to secure foul brood legislation as it is for Ireland to obtain Home Rule. "Freeman Journal" publishes the following resolution passed by a committee of the Irish Bee-Keepers Association:—

"Resolved: That this Committee regret that no steps have been taken by the department of Agriculture and Technical Instruction for Ireland to promote the necessary legislation with the object of dealing with foul brood among bees. Although nearly three years have elapsed since this Association laid all the facts of the case before the Department, and although, as is well-known, the rapid spread of the disease is fast ruining the bee keeping industry in Ireland, and that the attention of the Irish Members of Parliament and the public generally be called to the alarming reports from the thirty-two counties, and to the statements of the case for bee-keepers, appearing in the October issue of the Irish Bee Journal, the official organ of this Association; and that copies of this resolution be forwarded to the Lord Lieutenant, the Chief Secretary, the Vice President of the Dept. of Agriculture, and to the Pres."

Thoughts andComments ON CURRENT TOPICS

By a York County Bee Keeper.

FORMALDEHYDE AS A DISINFECTANT FOR FOUL BROOD.

From evidence coming to hand lately, it appears that bee-keepers had better not be too sanguine as to the efficacy of formalin as a disinfectant for foul-broody combs.

Inspector N. E. France, of Wisconsin, last spring experimented on an affected apiary with this drug, using double the strength as that usually recommended. All the combs were placed in clean hives and bees put on them. On visiting the apiary in question this fall, he found EVERY colony so treated, diseased. It appears to me that this is quite a clincher, coming as it does from so careful and conservative a man as Mr. France.

A "FOWL" BEE MAN.

The A. B. J. Oct. 15th issue has the following:

"We notice that one of the foul brood inspectors has envelopes and letterheads with 'Fowl Brood Inspector' printed on them. That's pretty rich. First thing that inspector knows he'll be taken for a 'chicken lifter'."

Ha! Ha! That is rich, no mistake. Talk about breaks that reporters make in writing up bee-keepers' conventions. They're simply "not in it." Too bad Bro. York does not give name and address of said "Fowl Brood" man; might have mailed him a few samples of ailing fall chickens to diagnose.

INTRODUCING "DROWNED" QUEENS
Among the latest of "new" methods

of introducing queens is that of thoroughly wetting the queen with water and then placing her on top of the frames with the bees.

In answer to a questioner in a recent issue of the A. B. J., Dr. Miller says:—"Hold the queen in water till she is nearly or ENTIRELY drowned" (small-caps mine). Does the Dr. really advocate such extreme measures as that? Webster defines drowning as death caused by being immersed in a fluid. Methinks that if the queen was "entirely" drowned, she wouldn't be much use after being introduced. Perhaps the Dr. has discovered some way of resuscitating "drowned things," previously unknown to materia medica.

AMOUNT OF WATER IN HONEY.

While this subject was under discussion at the Barrie meeting last December, a question something like this was asked: "Is honey, after having absorbed additional moisture by being exposed to a damp atmosphere, heavier than before? i. e., will it weigh the same as originally plus the percentage of water absorbed?"

If I mistake not, Prof. Shutt answered the question in the affirmative. Ever since then I have been pondering over the question a great deal, and the following item in the A. B. J. has brought the subject to my mind again:

In Editorial Comments, page 627, I find this: "Good honey contains in the neighborhood of 1-6 of its weight in water; in a moisture laden atmosphere it may attract to itself so much moisture as to be nearly half water. Now, we will take for instance, a block of 1,000 pounds of good honey with the bung-hole left open, said block being stored in a moisture laden atmosphere. It would draw into itself the difference between 1-2 and 1-6, which is 1-3; 1-3 of 1,000 pounds

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is 333 1-3 pounds; the total honey and water in the barrel would then be 1,333 1/3 pounds, would it?

Certainly this would be impossible as, water being lighter than honey, the barrel could not begin to hold that amount of honey and water. While this proposition has no doubt been given by way of a joke, yet it starts one to do a little thinking. What does really take place when honey becomes thin by being in a humid atmosphere? From my limited observation am led to believe that honey does not to any appreciable extent increase in weight by addition of moisture attracted to it. Perhaps there is some chemical inversion of the component parts of honey, such as the saccharine matter being turned into water or something of like nature. Not being "up" in chemistry, must leave the matter for abler heads to solve.

STRANGE CHOICE OF A HOME.

A few weeks ago, a friend, while out hunting, noticed something peculiar looking attached to the limb of an elm tree. On making a closer examination he was surprised to find that a swarm of bees had established themselves there.

The limb is about thirty feet from the ground on an exposed place, with the combs attached to it about six feet from the trunk. There are, as near as can be judged from the ground, six or eight combs, each about eighteen inches long and twelve inches deep, all securely fastened to the limb. To use his own expression, there is a cluster of bees outside of the combs as "big as his hat." The first time he noticed them they were on one side of the combs, and at his last visit, Oct. 20th, they had shifted to the opposite side. By the amount of comb built they must have been in their present location since early in the season, and evidently their inten-

tions are good to remain for the winter. As there are numerous places near by where they could have had much better accommodation, it is surprising that they should have stayed in such an exposed place. How they could conserve enough heat during the cool season we have had to raise brood, is a mystery.

I intend at my earliest opportunity to try and secure the limb with bees and comb to preserve as a curio. If successful will tell readers of C. B. J. more about it at some future time.

Death of the Drones

BY DR. A. W. SMYTH.

Drone bees cannot survive winter in a temperate climate. They cannot hibernate, or form hibernating clusters to save them from the cold. Some food is required by animals in the dormant state, and the drones have no honey sac or other means whereby to store it, and although larger than the worker bees, they are more sensitive to cold. The male or drone of wild bees do not live through the winter.

It is generally believed that on the approach of winter the worker bees kill the drones, but I have never yet seen a worker bee kill a drone. The workers occasionally kill each other, and if a young queen returns to the hive after leaving with a swarm, the workers will sting her at once. When afterswarms or casts are being united, one of the young queens will sometimes take flight and return to the parent colony if it happens to be near, and in a very few minutes she will be found dead in front of the hive. A worker or queen bee entering a strange hive is frequently killed but a drone rarely or never.

The workers in the fall keep marching and driving out the drones so as to have them die on the outside of the hive and away from the colony. A dead drone in the hive in winter is very objectionable to the workers. A whole colony of workers frequently die in the hive, but I never detected any unpleasant odour from dead worker bees, while a dozen or two of dead drones will give off a very disagreeable odour of putrefaction. The poison in the worker bee becomes disseminated through the body after death, and arrests decomposition. It is a curious provision of nature that the poison of the worker bee should act as a disinfectant in the dead bee for the protection of the living, but all the facts indisputably lead to that conclusion.

It is known that the bodies of animals and men fatally poisoned with the salts of arsenic or of antimony resist decomposition for some time; and long ago it was thought that the occupation of individuals had something to do with preserving their bodies after death. Shakespeare expresses this idea when he makes the grave-maker say to Hamlet that "a tanner will last you nine year." The application to the tanner is, as intended ludicrously absurd; but in the idea there may be a modicum of truth.

In Shakespeare's time the microbes were not known, and water was considered the great cause of decay. We know now that water alone, without the microbes, cannot decompose organic matter, and that, as the microbes are composed of fifty per cent. of water, water, for this reason, is necessary to decomposition.

The process of getting rid of the drones, before winter stops all active work in the hive, is a sanitary or hygienic measure taken by the workers to protect the colony from disease which might arise from dead

drones in the hive. It is often said that queenless colonies do not discard the drones. For a good reason the workers delay the sanitary measure, which may sometimes be neglected altogether, but I have seen queenless colonies driving out the drones. Fortunately for the bee-keepers' interests the worker bees do not study economic measures as closely as they do hygienic measures, and if our hives were constructed without floor boards, so that the drones excluded from the hibernating clusters would fall to the ground when chilled by the winter cold, the workers would not eject the drones from the hive.

A strictly hygienic hive would probably be a hive without a floor-board. Langstroth and Cowan have stated that they knew bees to winter safely in hives without floor-boards, and Langstroth states in the first edition of his book that the only colony he had to survive in an unusually cold winter in the State of New York was in a single walled hive without any floor-board—the colonies in hives with floor-boards having all perished. Langstroth mentions, however, having given some upward ventilation to these hives in which the colonies perished. The top of hives for wintering colonies safely in snow should be hermetically tight.

Doctor Draper said that man would yet learn sociology from the bees, and hygiene might be added. The bees will teach more than the "action of order to a peopled kingdom," but only when the people of the kingdom are ready and willing to learn.

In our climate the drones do not die of old age, and their death and life-work are by nature inseparably united. The life of the drones, soon to end from the winter cold, is shortened by the worker bees in order to protect the colony from disease, the preservation of the colony requiring

The system requires a certain amount of sweets and there is none that is healthier or better than *pure honey* that has been well ripened. By being well ripened we mean honey that has been left on the hives until it is rich and thick. When honey is first gathered by the bees it is then known as nectar and contains a large percentage of water. If extracted or taken from the hives too soon it will be thin and watery, lacking in flavor and keeping qualities. This accounts for the great differences in honey when gathered from the same flowers. We of course do not get as much honey when left on the hives in this way but the quality is much improved. Apart from this honey differs according to the flowers it has been gathered from. In this country white clover and basswood are considered the best. Almost all pure honey will granulate or become hard in cool weather or soon after it is taken from the hives; all that is required to make it as liquid as the sample given you is to stand the vessel containing it in hot water over a slow fire according to directions on the label.

As our supply of honey may be exhausted soon I would recommend ordering your winter supply. You need not have any fear of our honey spoiling, all that is necessary is to keep it in a warm, or at least a dry place. Never put honey in a cellar unless it is in sealed containers, as it absorbs moisture. Many families accustomed to honey have it on the table every day, using from two to three hundred pounds every year, and some as much as five hundred pounds. We use upwards of three hundred pounds a year in our family of seven. Order liberally as it can be returned either to myself or your grocer, if not perfectly satisfactory. I am,

Yours truly,

In another issue of the Journal I hope to give more particulars regarding these sample dishes, and as to delivering the honey personally or by the Grocer.

Brussels, Ont.

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Honey, Cheese, Butter
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BY R. F. HOLTERMANN.

Dairying is a science, the most progressive countries as the world knows progress, have for the longest time realized this. Milk from the pasture field, through the cow, in the dairy, at every stage can have its quality affected. Improper pasture, an inferior cow, the manner of treating or handling the cow, all will influence the milk, butter and cheese. Similarly the pasture, the bee, the manner of treating or handling the bee, all will influence the honey. Again, the method of handling the milk, the place in which it is stored, the humidity and temperature of the atmosphere, has its effect upon the flavor of the cheese and butter when it reaches the consumers' table. So with honey, after it has left the blossom its quality may be materially influenced by the manner in which it is taken, the place in which it is stored, and the humidity and temperature of the atmosphere.

Bee-keeping, as dairying, has fine problems, its delicate operation and great financial reward which can only be secured to the greatest extent by careful work, by intelligent work, by painstaking work, and the one who will give it this need fear no honest competition.

It is, perhaps, somewhat unfortunate that whilst dairying has received so much state aid in solving, management, etc., bee-keeping has received so little. True, dairying is of great magnitude, but it has in part become great by the improved quality of products and by the seeking of markets for the goods produced by this branch of agriculture.

Take a pound of rancid butter

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inferior cheese and see how much longer it will last than good. In like manner take 100,000 lbs. of each and see how such a quantity put upon the market will quickly depress the demand for the article.

Honey cannot be advertised by individuals or even by joint stock companies to create a demand as is the case with patent medicines or breakfast foods, the name of which is copyrighted and the article can only be secured through the agency which advertises it. Advertise honey and every bee-keeper gets the benefit. Again the margin on the patent article is great. The cost of putting it upon the market is as great, yes, probably greater than the first cost of the article sold. This can not be said of honey. Say honey is worth 6 cts. per lb. by the ton, how would it take in the market by having another 6 cts. tacked on it as the cost of advertising and putting upon the market, especially when every bee-keeper in the country has a right to sell honey under the name of honey. A good deal of nonsense passes as sound reasoning, and to-day, I often think, how rare a thing it is to find a man or woman who will stick to sound solid reasoning, and who will, in a REASONABLE way, stick to the point at issue until they are either victors or vanquished. Citrons fruit is given as an example, and we are told what they have been able to do in putting this article on the market. Is the comparison fair? I say, no! The production of citrons fruit is confined to a small area and they are largely extensive growers. The market for the article is, may I say, almost wholly outside of the place of production. Honey is produced practically wherever there is a consumer, and it is largely used in every district where it is produced. When we hear of successful combines in potatoes,

apples, grains, etc., we may look for a successful combine to keep up the price of honey. How has it been this year? The Exchange has been organized, and in the face of it honey has dropped wholesale 2 cts. or more per lb. The Exchange fixed the wholesale price of extracted this year at 7½c. per lb., and yet a vast quantity has been sold for less than that, and a very large quantity can still be bought at more than reasonable rates, in fact I know of members of the Exchange who with all their zeal have been compelled to sell for less. Combination in such an article is almost beyond the control of any organization.

The question may then be asked if the above methods are not likely to be successful, in what direction may we then turn with some hope of advantage to bee-keepers? Have dairymen tried to form organizations to control prices and source of output? I think not, and if they have, success has not been theirs. We have had men of splendid abilities to study this question, we have had the governments of various countries take an interest in dairying. What has been done by them may well be done by us. They have sought to put a better article on the market and then by superior merit and quality sought to capture the home and foreign markets. More, Prof. Robertson especially has sought to draw the attention of the European and home market to the value of butter and cheese as a food.

If bee-keepers would seek to produce a better quality of honey, it is, in my estimation, a step in the right direction. The producers of slovenly comb honey, the ones who produce or rather take and market unripe honey, or who by storing in an unsuitable place injure the quality of what was

once good, these are the persons who retard the development of markets.

Let us combine in these directions and seek to educate bee-keepers generally to the production of a better article, compel by a better article in general more consumption. Draw attention to honey in public meetings, at exhibitions, at farmers' institutes, at fat and live stock shows, for bees come under the head of stock. Along these lines let us seek to act and prices will improve as they have in dairying. If we pursue what is not practical, we waste our energies. If this plan will not stand the light of reason. I trust I shall be the first to own it, and be delighted with being set right. BUT, let us have reasons for statements so our reason will be appealed to.—Brantford, Ont.

Central Canada Exhibition

The Ottawa Exhibition closed gates 19th Sept. The managers had everything pre-arranged for success except the weather which, this time, was fairly favorable.

A pleasing peculiar excitement, a strange enthusiasm fills one even before he reaches the exhibition grounds. What is it? Perhaps the effects of the hurrah, hurry and bustle, noise, rush and rivalry that seizes most of the exhibitors and visitors at this huge market. Besides it is a great gala holiday time—merry-making, sight-seeing, curiosity-loving, friend-greeting and human nature-studying, completely breaking the usual routine of life—that much dreaded and much loved monotony.

A large number of the exhibitors as usual were old-timers, the honey line being no exception. After several enquiries why the same men show year after year, and why freshmen so seldom enter the lists, a partial conclusion seems to be something like this:—Recruits rather

timid about competing with veterans similar to classing amateurs with professionals. Showmen of standing have the requisite equipment always costing considerable. So many new contestants enter for a year or two, secure only a few prizes, get discouraged and drop out. Perseverance and a determination to win would probably have classed them with the successful.

This season being a poor honey one in Eastern Ontario no one expected to see at our exhibition a display equal to previous years, unless some of our western bee-men packed up and moved here for exhibition week. The niggardliness of our honey prize list—it used to be liberal and then we had western competitors—not only keeps apiarists from a distance from showing here, but many of our local bee-keepers, and there are a large number in the Ottawa Valley who have made a success of honey-producing on a large scale.

To make a display of honey, etc., so attractive that visitors will really admire and return again with their friends to see it, costs time and money, thought and labor, skill and the genius of an artist. No wonder then that so few show for such meagre remuneration. Two firms again this season were the only exhibitors. W. J. Brown, of Pen-dleton, winning 7 firsts, 5 seconds and 1 third; McLachlin Bros., of Cumberland, winning 7 firsts, 9 seconds and 4 third prizes.

These gentlemen deserve a great deal of credit for making such a fine showing in so unfavorable a season.

If Mr. Darling, representative at the Central Canada Exhibition of Ontario Bee-Keepers' Association, sees this item, I trust it will be a reminder of some changes he might urge in the Ottawa Exhibition prize list. "APIS."

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BY-LAWS OF THE ONTARIO BEE-KEEPERS' ASSOCIATION

ORGANIZED SEPTEMBER, 1780
INCORPORATED MARCH, 1886

1. This Association shall be known as the Ontario Bee-Keepers' Association, and shall be composed of those interested in bee-keeping, who become enrolled as members by paying the annual membership fee of one dollar.

2. A general meeting of the members of this Association shall be held once a year, and shall be known as the Annual Meeting, the year to begin with the election of officers at such Annual Meeting and terminated on the election of their successors at the next Annual Meeting. At this Annual Meeting, or at any other general meeting of this Association, ten members in good standing shall constitute a quorum.

3. The time and place of holding the next Annual Meeting shall be fixed by the members present at the Annual Meeting.

4. The Board of Management shall consist of a President, two Vice-Presidents and nine Directors, elected one from each of the following twelve divisions:

Division No. 1—Stormont, Dundas, Lennox and Prescott and Cornwall.

Division No. 2—Lanark, Renfrew, Carleton, Russell and Ottawa.

Division No. 3—Frontenac, Kingston, Leeds, Grenville and Brockville.

Division No. 4—Hastings, Addington, Lennox and Prince Edward.

Division No. 5—Durham, Northumberland, Peterborough, Victoria and Halton.

Division No. 6—York, Ontario, Peel, Middlesex and Toronto.

Division No. 7—Wellington, Waterloo, Kent, Simcoe, Dufferin, Halton and Hamilton.

Division No. 8—Lincoln, Niagara, Welland, Haldimand and Monck.

Division No. 9—Elgin, Brant, Oxford and Norfolk.

Division No. 10—Huron, Bruce, Grey and Simcoe.

Division No. 11—Essex, Kent, Lambton, Middlesex and London.

Division No. 12.—Algoma, Simcoe, Muskoka, Parry Sound, Nipissing and Manitoulin.

Also one director from the Ontario Agricultural College and Experimental Farm. The Board of Management so elected shall appoint from among themselves, or otherwise a Secretary and a Treasurer, and shall also appoint at least three of their number as an Executive Committee.

5. Five members of the Board shall constitute a quorum.

6. Vacancies on the Board by death or resignation may be filled by the President subject to the approval of the Executive Committee.

7. The officers of this Association shall be elected by ballot, with the exception of the Auditor, who may be elected by an open vote of the Association.

8. It shall be the duty of the President to preside at all meetings of this Association; to call for reports; to put motions when seconded; to decide upon questions of order and to declare the result of ballots and elections. The President, in connection with the Secretary, shall have power to call special meetings when necessary. The President shall be ex-officio chairman of Board of Directors, and call it together when necessary.

9. In the event of the death or absence of the President, the Vice-President shall discharge his duties.

10. It shall be the duty of the Secretary to keep and preserve the books of the Association; to call the roll and read the minutes at every meeting of the Association; to conduct all correspondence of the Association; to receive and transfer all moneys received for fees and otherwise to the Treasurer, having taken a receipt for the same; to make out a statistical report for the Association and for the Government; to furnish the officers of the County and District Associations with forms for organization and annual reports, and to give notice of Association and Board meetings through the press or otherwise.

11. It shall be the duty of the Treasurer to furnish such securities for the moneys of the Association as the Board may determine; to receive from the Secretary all moneys belonging to the Association and to give receipts for the same; to pay

them out on order endorsed by the President and Secretary, and to render a written report of all receipts and disbursements at each Annual Meeting.

12. Any County or District Bee-Keepers' Association in the Province of Ontario may become affiliated to this Association on payment of five dollars, which shall be paid to the Secretary on or before the first day of June in each year; but every local Association so affiliated must have on its membership roll at least five members who are also members of the Ontario Bee-Keepers' Association at the time of affiliation, and must continue to have a like number of its members on the roll of this Association while it remains in affiliation.

13. Every affiliated Association shall receive an annual grant out of the funds of this Association. The amount of such grant shall be fixed by the Board from year to year.

14. All grants to affiliated Associations shall be expended in prizes for honey shows, or for shows of apiarian appliances, or for lectures on subjects pertaining to bee culture, or for advertising district or county meetings, or for any or all of these, and for no other purpose.

15. Every affiliated Association shall report to the Secretary of this Association (on a form to be supplied by the Secretary) before the first day of December in each year, which report shall be signed by the President and Secretary of the affiliated Association.

16. County or District Associations seeking affiliation should forward to the Secretary an application according to the following form: "We, whose names are written in the accompanying form, having organized ourselves into a County (or District) Association to be known as County (or District) Association No. —, desire to become affiliated to the Ontario Bee-Keepers' Association, and we agree to conform to the Constitution and By-Laws of the said Association."

Form of application as follows :

Names of those already Members of O.B.K.A.	P. O. Address	Fees	Names of those not already Members of O.B.K.A.	P. O. Address	Fees	Remarks

17. Every affiliated Association that neglects or refuses to pay the annual affiliation fee, or neglects or refuses to forward to the Secretary the annual report on or before the date fixed may be deprived of their affiliation privileges by the Board.

18. Should an affiliated Association become defunct after the payment to it of the grant from this Association, any unexpended balance of said grant shall be forfeited and paid over to the Treasurer of this Association.

19. Each affiliated Association shall be entitled to the privilege of two representatives at the meetings of this Association in addition to those who are already members of this Association, and such representatives shall be entitled to all the rights and privileges of members of members of this Association,

20. Every delegate from an affiliated Association shall furnish to this Association a certificate, signed by the President and Secretary of the body which he represents, showing that he has been duly appointed a delegate of such Society.

21. Each affiliated Association shall be entitled to the services of an Association lecturer (when such exists) once a year, half the expenses connected with such lecture to be borne by the District or County Association and half by the Association.

22. The order of business by which the meetings of this Association shall be governed shall be in the discretion of the President, but subject to appeal at the meeting when objection is taken when a majority vote of the members present shall decide on the objection and in such cases the vote of the majority shall be final.

23. These By-Laws may be amended by a majority vote of the members present at any Annual Meeting or at a special meeting of the members called for the purpose of considering the same and of which at least two weeks notice shall be given by public advertisement.

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BOTTOM

Honey in Great Britain.

Reports reach us from Scotland as to the prospects of a poor honey harvest there this season. For the second year in succession Scotch bee-keepers have to be content with a crop which will reach only about one-half that of ordinary seasons, owing to an abnormally cold and backward spring being followed by an equally adverse early summer. At Ayrshire, a town famed for the industrious bees, the return of honey will once more be very limited. Various other parts of the west of Scotland report that the produce of honey will be short. Comb honey of good quality is scarce, and those who possess such ask a further increase in prices from those of a year ago. Pressed heather honey in bulk and in bottles will no doubt be more plentiful; but with the failure of the crop of 1902 the price of this article will have an upward tendency, so that we are safe in assuring those members of the trade who deal in this article that there will be a very restricted supply this season. In the south of England the honey harvest is poorer, and reports state that the crop is no better, and the quality not quite so good as last year.

At the London market recently, 78 packages of Jamaica honey were sold at \$5.33 per 100 lbs. Chemists are now retailing honey at 32 cts. per lb. against the grocer at 21 cts for the same quality. Honey is an article which meets with a ready sale in the grocers' and oil-men's business, more

especially during the winter months. We presume the Pharmaceutical Society will not deem the grocer a trespasser on the preserves of the chemists by the sale of honey, simply because chemists use honey largely in making up their remedies for the cure of winter colds. They have for many years encroached upon the tea-dealer's trade by selling tea, upon which they make a large profit. Why, then, should not the grocers push the sale of an article within their legitimate trade which is as justly renowned for its value as pleasant to take?—London Grocer, Eng.

The value of honey imported into the United Kingdom in the month of August, 1903, was £3,433.

Perseverance and punctuality are called commonplace; but they are uncommon enough, all the same, to make those that practice them uncommonly successful.

BRANT COUNTY Bee - Keepers' Association

A meeting of the Association is called for

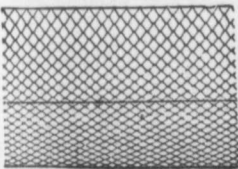
Saturday, November 14, at 2 p.m.

in the Court House, Brantford. A full attendance of members is requested. Election of officers and appointment of delegates to the Provincial Association.

ALEX. TAYLOR, Paris, President
W. J. CRAIG, Brantford, Secretary

Page Acme Poultry Netting

NOTE
CLOSE
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AT
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Weekly Mail and Empire

For News ————— 24 Pages

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The picture shows one of such deeds. Two troopers are closely pressed by the enemy. The horse of one is hit. Under the withering fire, the man whose mount is unharmed, halts, and, risking everything, waits to get his comrade safely mounted behind him and carry him back to the Canadian lines. It is a desperate chance, and one often performed and seldom noticed. When, however, such an act is seen, the reward dear to all soldier's hearts above every other is the result.

This picture is from the brush of Mr. W. B. Wollen, a man famed for his war pictures, and whose work appears in all the leading illustrated periodicals of the Empire. It is a forceful subject from the hand of a strong man.

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Bee Keepers.

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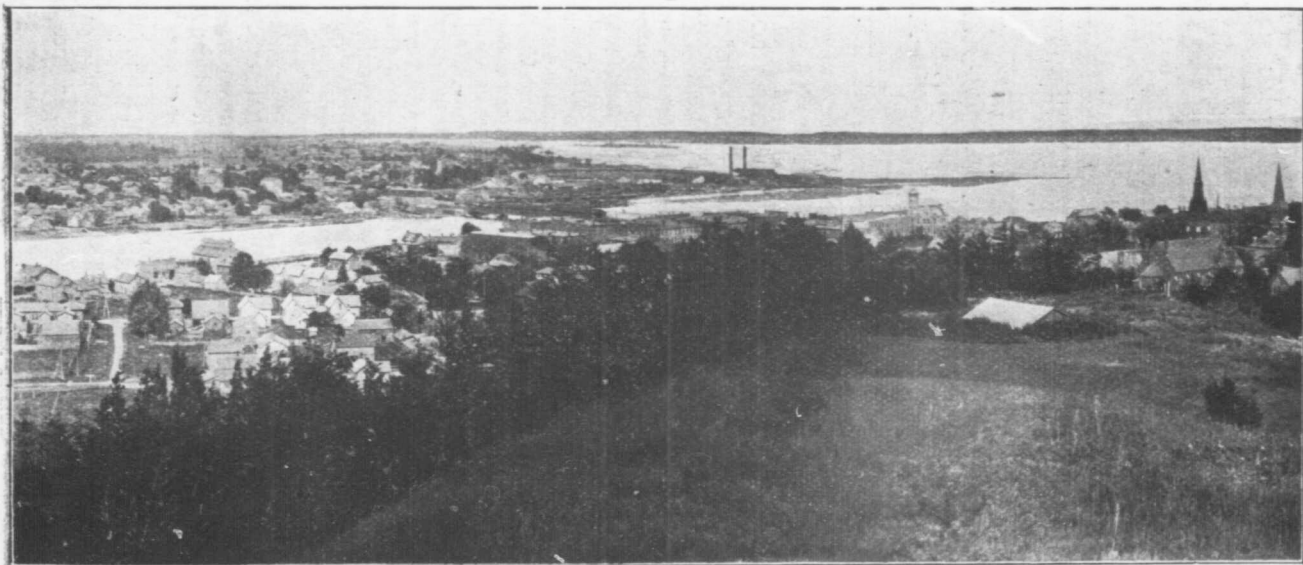
Next Place of Meeting—Trenton.

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View of Trenton From The Mountain.