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CANADIAN BEE JOURNAL

PUBLISHED MONTHLY.

NEW SERIES
VOL. VI, No. 6.

BRANTFORD, ONT., DEC., 1898.

WHOLE No.
406

The Hon. John Dryden, Minister of Agriculture for Ontario, Some Possible will be at the Ontario Visitors. Bee-Keeper's Convention if he can spare time to attend. G. W. York, Editor American Bee Journal, Chicago, and E. R. Root, Editor Gleanings in Bee Culture, may also be with us. Let all come who can.

* * *

Readers of the CANADIAN BEE JOURNAL, and particularly those who met Mr. and Mrs. Thos. Wm. Cowan, of England, when they were in Canada some years ago, will hear with regret and sorrow, that Mary H. M. Cowan, the eldest daughter, and Mr. Herbert F. Cowan, the second son, were passengers on board the ill-fated Atlantic liner Moeagan, wrecked off the Cornish coast on Oct 14th, and that the lives of both were lost. We have a letter written by Mr. Cowan on board the Etruria on his way to New York, in which he stated that he intended to visit us on his way to California, but that now Mrs. Cowan, himself and a daughter will go direct to California to join a son who has been there for some time. We had been corresponding with Mr. Cowan and rather expected that he might appear at the coming convention of the Ontario Bee-Keepers' Association. From a private source we learn that the late Mr H. M. Cowan was preparing for missionary work in China and that both children met their end with Christian resignation. The

Parents "Sorrow not as those who have no hope."

* * *

We have before us a Text Book—"Agriculture," by C. C. James, M. A., Deputy Minister of Agriculture for Ontario. We have by C. C. James. known for some time that Prof. James had this work in hand and expected something good from his pen. The work is excellent, full of information of practical value to the farmer and his family. The subject of agriculture is also treated in such a way that those in the city will find food for pleasant thought in it. Chapter xxxvi gives many interesting facts on Bees. The work is a credit to the author and fills a place which has been vacant for some time.

* * *

A very few are advocating that sections are best put upon the market with a certain amount of bee glue on them, because it looks more like the genuine article, and that which reminds them of the days gone by. We would willingly credit the source and author of the idea out it has slipped our memory. The above reminds me of an incident when out at Farmers' Institute work some years ago. The member of the Government deputation with me was very partial to milk, of which very little, even for tea and coffee, had been upon the table for some time (we were in a newer and colder part of the Province). One day for

A Section
Scraper.

dinner a jug of milk appeared upon the table. I took half a glass and began sipping it. It tasted so strongly of the stable I suggested to my colleague there was no mistake about it; this was genuine cow's milk. He filled his glass promptly and downed half of it before he struck the flavor. It was cow. We do not require to have our product in a crude condition to enable an intelligent public to understand it is genuine. It is just as absurd to call for propolized and travel-stained honey as it is to call for hair in butter. We have for several years been using a section scraper. It is made of a putty knife. At one corner a notch is made an eighth of an inch wide and a quarter inch deep; this enables anyone to scrape at one time the outer side of the section to the depth of a quarter of an inch, also the face edge of the piece of wood. Another notch is made about three-eighths of an inch down the other side of the knife. It is filed wide enough to conveniently contain a piece of wood the thickness of the section, and the cut is made such a depth that when the wood is passed through the notch in the knife the three surfaces can be scraped rapidly, and yet if the section is taken with separators there is no danger of injuring the comb. When the thumb is used as a gauge one has to be careful and this means the loss of time, and then many mistakes are made.

Anderson's Physical Education.

We have just received, from the publishers, a copy of "Anderson's Physical Education." This is the latest work of Dr. W. G. Anderson, the well-known professor of Gymnastics at Yale University. The book treats of every phase of Body Building, and is "up to date" in every particular. There are special chapters devoted to Professional people, Business Men, Women and Children. It tells you how to decrease your weight if corpulent, and increase it if thin. It gives valuable Measurement Charts for both men and women. Every reader interested in better health, greater strength, grace, self-control, elegant carriage, should possess a copy of this work.

The Book is full of good suggestions for all classes. The Parent who is anxious about the narrow chest of the child—the Young Man who is worried about his lungs and stooping shoulders—the Business Man on the verge of collapse—the busy Editor, Lawyer, or Minister, alarmed because of an over-taxed brain and its resultant sleeplessness—the Society Woman who finds the adipose tissue is accumulating too rapidly over the abdomen—the Housewife who can no longer climb the stairs without losing her breath—the Young Lady who is troubled about the bones in her neck showing and slight bust development can all find in this book much that would benefit and help them. We know of no work that gives so many useful and helpful suggestions in such compact and readable form. The illustrations, about one hundred in number, are taken from drawings and life.

The book will be sent postpaid by the Publishers for 15c. Address—

THE HAROLD A. WILSON CO., L't'd.,
85 King St. West, Toronto.

CANADIAN FRUIT AND HONEY.

Samples Received in England Pronounced Excellent.

Letters From Leading Manchester And Bristol Men.

The following has been going the rounds of the Canadian press:

Ottawa, Oct. 19.—A letter has been received at the Department of Agriculture from the Lord Mayor of Manchester, Hon. Robert Gibson, in which he says:—"The samples of maple syrup, maple sugar, and clover honey have duly arrived. The honey and syrup I have submitted to some large buyers of such material here, who seem much pleased with the samples, and have promised to communicate with their Canadian agents. I shall indeed be pleased if it leads to business, and the more the Mother Country can reciprocate with her colonies the better for all."

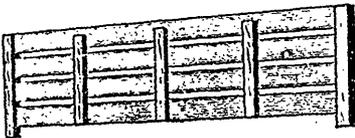


No Bee Way Sections.

We have before made reference to the "No Bee Way Sections." Our opinion has been that all the conditions which lead to the securing of well filled sections can be secured, and are already secured, without having a section with the sides the same width as the top and bottom. The fence separator is comparatively difficult to clean, and a greater expense than the straight. I have been asked to give some of the arguments against the fence separator and "no bee way section." I have at different times objected to taking up the subject again, but the pressure has increased and I have consented. At the outset, let me say, the pressure has been brought to bear by those who do not think it advisable to adopt "no bee way sections." Let me say that what we want is straight and pointed remarks bearing upon the question. If my arguments are faulty I am anxious to have them criticised and if the arguments used by those opposed to me can be shown to be faulty and misleading, I must claim a similar privilege. The question is open to both sides for discussion.

Taking the circular and price list for 1898 of the A. I. Root Co., we find the following:

1st. "These fences are made entirely of



The Fence Separator.

scrap and consequently will cost but little more than the old-style separator, which, after being used a year or so, had to be discarded. As they will be glued together at the factory by automatic machinery, the bee-keepers will not be bothered to put them together. Those who have used this glued fence say it is good for years. They are, therefore, cheaper when viewed in this light, than the old separators."

The new fence then, to begin with, costs a little more, but the old straight separator is discarded after a year or two and

the new is not. Why are ordinary separators discarded? Is it not because they become soiled and travel stained? I am, of course, not writing about those who are careless and allow them to be lost and trodden under foot. I will allow bee-keepers themselves to answer this question. Surely the new fence separator, with three spaces between the wood or bars and five upright posts cannot be scraped more readily than a plain board, and unless "the leopard has changed his spots," the bees are more likely to propolize in the angles and corners of the fence. How it can be otherwise we would like to know.

2nd. "Prettier and better filled comb honey can be secured with a fence, for the reason that the bees can crawl all through the slats, affording them easy and direct passageways from one honey box to another. One great objection to the old style super with its separators is that it shuts off each section box into a compartment or room by itself; and, as everyone knows, it was much harder to get bees to enter comb honey supers than supers of the extracting sort."

It appears reasonable that there would appear to be an advantage in the open separator, although, in the tests we have made—particularly in the separators towards the centre of the super—this advantage has not been as apparent as I thought it would be. But the open separator is secured without the no-bee-way section. Mr. Jacob Alpaugh's method is in my opinion, excellent. Instead of the five upright pieces of wood glued, five pieces of folded tin are used with projections to keep the cross pieces apart. When the tins or wood requires to be cleaned the wood strips are pulled out of the tin posts when all can be cleaned without having angles and corners.

Clause No. 2 goes on to say "it was much harder to get bees to enter comb-honey supers than supers of the extracting sort." From the above we would conclude that the argument is, that with the new fences the bees will enter sections as readily as extracting supers. Is it the case? I think the majority of bee-keepers will be inclined to the conclusion that such would be contrary to what they have found to be the habits of the bee.

4th. "The fact that the fence is made up of several different slats, bound by transverse strips on each side and grooved cleats on each end, has a tendency to very materially stiffen and strengthen the section holder. In the old style super the

bottom-bar of the section-holder would sometimes sag; but the new fence is so much stiffer than the separator that we believe it will do away largely with the sagging of the bottom-bars."

I rather thought that when that able and well-known apicultural writer,

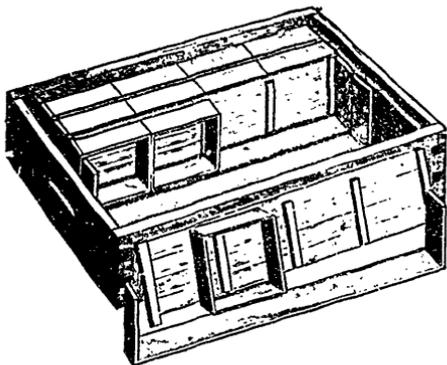


Fig. 2. Dovetailed super with plain section and fence.

Doctor C. C. Miller, championed the 1 super in preference to the section holder, the editor of *Gleanings* did not find any sag to the bottom-bar of the section holder. The section holder will not sag if the sections are wedged up at the end, so that there will be no play in the row and none between the section holder and the super. Also the sections should be well keyed up, pressing the sections and separators together—this latter, by the adhesion of side bars of sections and the separators, takes a considerable weight from the bottom bar. The question simply is: Is the fence stronger than the old separator and, if it is, is the old separator on end, braced on either side by tightly pressing the section against it, strong enough to prevent it from sagging? As I see it, in a downward pull the greatest give will be at the weakest point between the fences, and the fence made of four strips with a space between will not be as strong as the continuous piece in the regular. Some may have found the old separator to sag with the section well keyed against. I have not. If it is strong enough to stand the strain on it after the bottom bar has stood its share, there is nothing in this point.

No. 5. "The new sections, when filled with honey, will bring a higher price because they appear to be, and in fact are, better filled out and the surfaces of the

combs themselves are more even—at least that seems to be the experience of those who have used such sections with a cleated separator or fence."

If this can be done how is it that at Toronto, London and Ottawa Exhibitions the plain sections did not distinguish themselves by capturing the prizes on comb honey. The comb honey in the plain section was shown at Toronto but secured nothing. We have seen several lots of comb honey in plain sections but, so far, have seen none superior in finish to that taken with the ordinary section, 1, and other Canadians, saw at the Buffalo convention, Dausenbaker's comb honey taken with the fence separator, and I fancy he had the best he could lay his hands on, and we know we have had better at the Toronto Exhibition. In fact sections of the ordinary kind have been shown at Toronto and other Canadian Exhibitions, so perfect that the comb had no pop holes. As at this point the catalogue closes the plea for superior honey with the plain section and fence separator, let me emphasize my objection to making the fence separator and plain section stand and fall together. The plain section is one thing; the fence separator quite another. I have no strongly formed opinions about this point but, granting for a moment the superiority of the cleated separator, it can—as before shown—be used with the ordinary section. Again, open top and bottom bars can be had with the one piece section ordinary, as well as the plain. To illustrate: you have two houses with wells. In one a chain and wooden bucket is used to draw the water, the other uses a chain and pail. The man with the wooden bucket considers his outfit superior and vice versa. One day the man with a wooden bucket gets a happy thought, he attaches a windlass, feeling sure he has given his rival a black eye. He must now recognize the superiority of the wooden pail. But, not discouraged, the tin pail man applies the windlass to his tin pail and the discussion is as animated as ever.

6. "Facility in scraping these sections with their plain straight edges is quite an important feature. It is not an easy matter to clean out the insets of the ordinary old style sections, and practically impossible to remove the stains. A case knife or a piece of steel having sharp square edges will, with one sweep, clean almost the whole four edges of the new section at once."

Here I consider the plain section, has it

weakest point. I may be wrong, and must allow bee-keepers to judge for themselves, but it appears to me that bees propolize on rough surfaces, opening less than a bee space, angles, and where two pieces join and do not press tightly together. If the fence and the sides of the sections match perfectly there will be no propolizing. If, however, the section must be scraped on the surface (and are we not to infer from the directions in No. 6 that they require to be so scraped?) then the wood on the inside of the section will also require to be scraped, for bees cannot press propolis between two surfaces without staining the wood on either side. Who would consider the cleaning of wood so close to the comb would facilitate scraping?

8. "The new section is only $1\frac{1}{2}$ inches wide, and yet will hold as much honey as the old $1\frac{3}{4}$ sections with its openings when used with plain separators and, consequently, the ordinary shipping case will hold from 15 to 25 per cent. more honey, thus effecting a substantial saving in cases to the bee-keeper."

I have just been into the honey room and measured the comb. I find that the space left between the separator and the comb in a well filled section is $\frac{1}{4}$ in. to $\frac{1}{2}$ in. plump. Two surfaces, one on each side of the section, makes the $1\frac{1}{2}$ in. equal to $1\frac{1}{4}$ in. plump, regular style. Then our market can handle to the best advantage crates holding twelve section crates. Pick up many of our leading papers and they quote honey by the dozen. The 15 section crates with us is an odd size and, if we are not mistaken, it is the same in the United States. If this is the case, is it

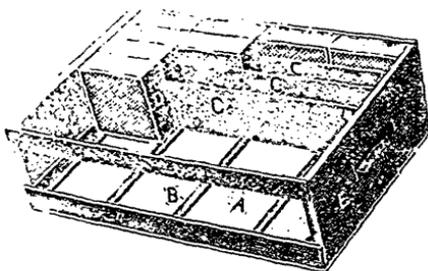


Fig. 3. Comb Honey Shipping Crate.

desirable to use such, even if they are as acceptable; will it not lead to confusion and trouble in explaining? Further on in the catalogue—and I am taking the catalogue simply because in it I find, in a compact form, the arguments which have

been brought forward in other places—I find a new comb honey shipping crate with separators between the rows of sections and the following statement: "These should always be used in cases with plain sections." The above refers to separators.

The above are a few thoughts in connection with this question. I have no interests to serve in this matter; let us have the views of our readers. I think, unless there is something to be gained by it, we should avoid such a variety of goods, and, if we are going to lose anything by it, all the more reason why we should leave it alone.

I am not attacking the Root people. Anyone who is an advocate of plain sections is free to take a hand in it. Let me say I do not consider it an argument to say that "my honey, taken in plain sections, is better than that of a neighbor of mine who uses the regular section," or "I am getting better honey with the plain section than I did before without it," and vice versa. There are many other conditions which may enter in and change results, but if anyone has better comb honey with no bee ways let them bring it to the Ontario convention at Guelph. I am half expecting Ernest Root at the convention and we may then bring the matter up.

R. F. HOLTERMANN.

P. S. — In discussing the above question we can avoid personalities, but do not be afraid to score heavily for or against. Great men of the past, such as Bismarck, Gladstone, Emerson, and a host of others, were not afraid to score when they could. At the present day our leaders should be no less afraid to express themselves. We should respect solid and sound reasoning, truth, sincerity, courage, and energy. Even when solid and sound reasoning is absent and the other attributes are there we may respect a man. The man who knows the truth and for lack of courage and energy remains silent, is less deserving of our respect. The man who is insincere in his reasoning with the intention of scoring an opponent or gaining a temporary advantage, not only does not merit our respect, but deserves the finger of scorn.

R. F. H.

This was the poorest honey season I ever experienced here. Frost came early in July and no surplus after that time. Early swarming, in many cases did not get enough to keep them even to this time.

DR. JOS. KINDER.

Renfrew Co., Nov. 16, '98.

Notes and Pickings.

—D. W. HEISE.

The question of whether bees carry eggs or not, which has received a good deal of attention through the Journals, is as yet, I believe, unsettled. I want to relate what came under my notice the past season, and will make no assertion as to the eggs being carried, but will leave the reader to draw his own conclusions. While examining some colonies the last spring, I found one whose queen was a very bad "stacker." I killed her and removed the eggs and young larva. I then gave them a comb containing eggs and larva from another colony. This comb was placed second to the division board, this being the brood nest proper. Imagine my surprise upon opening that hive some time after to ascertain what progress was being made, to find a queen cell attached to the division board when the frames were removed. This cell was ready to seal when found. "Do bees carry eggs?" This statement can be attested to at any time by my assistant, whose attention I called to the matter for the express purpose of verifying this statement should I ever make it in print.

The general reports would indicate that the tall sections are more appreciated by consumers than the square ones. I have learned just recently, from a comb-honey producer in this county, that his tall sections were eagerly snapped up at 17 cents, while the square ones went begging at 13 cents. He also says the bees will store more honey in a given time in tall sections than they will in the square. But the "Boiler" in American Bee Journal says Chicago will have none of them.

Two pound sections are made by Geo. O. Morris by taking two one pound sections, putting a sheet of foundation between them, pressing together—Gleanings.

The difference in the value of the honey taken from cappings this year, when compared with the darkened mass taken from the same source in former years, more than paid my expenses to the Hamilton convention. I learned there (from John Newton,) how to prevent honey taken from cappings, when put through the solar, from becoming darkened. Never allow

the sun to strike the vessel containing the honey, and remove it just as soon as it has run down. Thank you Johnnie.

The one great reason why those interested in bees move so slowly towards any given point, is, that so few of them realize the importance of association and combination. Suppose 300,000 are keeping bees in the United States, not more than 25,000 take a bee paper, and not more than 2,000 are members of an organization to forward bee-keepers' interests. Let the apiarists combine, as do the brewers, the dairymen, the grocers and others, and there is hardly any result that may not be attained that is for their interests.—H. F. Moore, in American Bee Journal.

There appears to be a good deal of anxiety felt at present within the fraternity, as to the probability of foul brood being developed through the introduction of a queen taken from a foul brood colony. I think it would be in the interests of all, if the large queen breeders would club together and engage some competent person to make a thorough investigation, on scientific principles. If there is any danger of getting foul brood from that source, the sooner the bee-keeping world is made aware of it the better, and, if there is no danger, the sooner that suspicion is dispelled, the better it will be for those engaged in the breeding of queens for sale.

I had thought that Brother Hasty, of the Review, was my friend, but just look on page 237 of that Journal and notice with what icy chilliness he refers to this department. He says, "Perhaps the advent of Notes and Pickings should be mentioned as a new and interesting feature." He apparently is not quite sure of it. Oh! Bro. Hasty, is that the way you would encourage a youngster when he starts out in great weakness to accomplish something good. I will see to it that I make mention of no more kind words about you until you warm up a little.

In Gleanings, J. H. Martin advocates the use of rubber soles on shoes to prevent the adhesion of honey and wax from the floor of the honey-house. Editor Hill, in referring to this in American Bee Keeper, says, "We can beat that remedy by long odds. Keep wax and honey off the floor." In some honey houses of California, the birth place of Mr. Martin's idea, one would require frequent changes of rubber suits."

That 39 frame super that was mentioned in a former note of mine, must have

staggered some. I admit that I use some pretty large hives, but I don't keep bees in a barn, and have supers to cover the entire top. "Three-nine-frame supers," you Devil! I mean the printer's Devil. See?

In the October number of this journal, we had a very concise, and eulogistic report of the apiarian exhibits at the Toronto Industrial, written by J. J. Hurley, and it is not my object in this note, to in anyway improve upon his report. But simply add to, or enlarge upon it. I first desire to make mention of the practical new inventions on exhibit, never shown before. The section super shown by R. H. Smith, while perhaps not new in every detail, but rather a combination of several modern improvements, including the Pettet perforated divider, the Alpaugh tin joint protector, and several other important features which go to make up a first-class section super. I understand credit is due Mr. Alpaugh for this combination.

Mr. J. W. Sparling also showed an improved section super, and if it will give the results that Mr. Sparling expects from it, it will certainly be away ahead of a great many supers now in use.

A simple and inexpensive device was shown by John Peirie, to attach to the top of a storing tank, for the purpose of holding the rail in proper position while draining. This ingenious little implement caught my eye perhaps more than anything in the line of inventions shown. Many a time have I stood by a tank holding a pail, and wondering why someone had not thought of some arrangement that would do the "holding," while the operator was doing something else. Mr. Peirie's device fills the whole bill admirably; it is inexpensive, and anyone who is mechanic enough to make a hog trough, can also make this.

The Hive Cover shown by R. F. Holtermann and bearing his name, is, I believe, the coming cover for those who use a flat top. The inventor says it can be manufactured, and sold for about the same price as the ordinary cover, and being absolutely water tight, and a good non-conductor of heat and cold, it should find ready favor with the fraternity.

The same gentleman showed a simple little implement in the form of a putty knife, with notches filed in the edge to be used as a hand section cleaner. The one notch is one-eighth of an inch deep, and wide, thus it will drop in to the edge of a

section, and three sides can be scraped by one motion from the operator. The other notch is used to clean the out edge, of the inside of the sections, and will only extend a given distance from the edge, thus safety is secured to the cappings. This little device while seemingly insignificant, is nevertheless of considerable importance, as "little things" sometimes are; like this (Picker) for instance when a dish of choice apple-fritters, and delicious honey are placed before him, he can play a very important part in getting on the outside of them. Ah-Hem.

Perhaps in the absence of more data as to the practicability of the new Gould Honey Package, they deserve only a passing notice here. As a new invention I believe they embrace every important feature of a cheap and convenient package for honey, save one very serious objection, that is, they will not endure sufficient heat in water for the liquefaction of honey, although I have heard Mr. Holtermann aver that they would, yet others say not. The sooner this point is fully determined, the better, if it is desired to make the receptacle a popular one to retail honey in.

The one piece section shown by the G. S. & M. Co., with the bee space extending from side to side of top and bottom, in my opinion is a decided improvement, and will no doubt find favor with those who use the one piece sections. Upon the whole, the new inventions were good. Oneman (who I think is competent to judge) was heard to remark that it was the best exhibit of practical apiarian inventions ever shown in Toronto.

(Allow me to digress.) While speaking of inventions, I desire to say, that judging from what has appeared in some of the Journals, during the last year or two, the time has apparently arrived in connection with inventions on things apicultural, where the man who dares to allow his inventive brain to produce something new is looked upon, by at least some of the shining lights in beedom, as only being about one degree above the moral level of the ordinary criminal. Why bee-keepers who possess inventive ingenuity, but simply because they happen to be young in years and experience, should merit such treatment from the veterans, is beyond my comprehension. Was it not through the inventive genius of man that we have attained to the high standard of modern apiculture? And furthermore, would any one say that we have already reached the top of the ladder of fame in

this direction? I think not! Then why not let the good work go on, and not try to discourage a man who has perhaps spent days, months, and years in thought and experiments, only to have such epithets hurled at him when he produces his invention, as "Crank," "Smart Alex," "he thinks he has found a mare's nest," and other sarcastic remarks that I have heard come from men who have never halted for a moment to ascertain whether the article has true merit, or whether it is a step in advance. But on account of the inventor's youthfulness, both he, and his invention are denounced as "no good", without a trial, or jury. And the genius who might have made a mark for himself in the bee-keeping world, drops into oblivion. I do not wish to imply that bee-keepers should rush into expensive experiments with every new, and untried idea that may be launched upon them. But don't throw sand in an "inventor's" eyes, just because he has given to a matter a great deal of thought and labour, when you have given it none whatever.

(Now back to my subject.) I next wish to call attention to the building provided for the display of the apiarian exhibits. I consider the accommodation that it affords entirely inadequate to what should be the demands of honey and apiarian exhibitors, both in capacity and lighting. In the first place, the space granted to each exhibitor is not sufficient to allow his exhibit being set up to the best possible advantage, and crowding one exhibit so close upon another as they have been in the past, there is no preceptible distinction to the casual observer, unless it be in the different coloring of the decorations. The bee-keepers should urge upon the exhibition management to remedy this evil, by providing a building of sufficient length and width, that a central stand could be arranged its entire length, and of sufficient capacity to accommodate all the honey on exhibition. And having a passage on either side, as well as one between each exhibitor's display. Or perhaps it would be economizing space to arrange the stands on the sides of the building, with a wide passage in the centre for the accommodation of the sight seers. In either case light should be excluded from the ends, and all the light admitted from the sides directly above the pyramids of honey. Thus more equality of light would be secured to each exhibition? which has been very much lacking in the past, as any one who was at all observant could easily see how the color of honey was effected by the shade

of light which it received on account of the peculiar position which it occupied. I think I see an improvement in another direction, it is the proximity which apiarian supplies and equipments have always occupied to the displays of honey. Separate space should be provided for supplies, because when they are piled up on the same table with the honey, they mar the beauty and attractiveness of that display, and anyone not acquainted with the requirements in the way of supplies, after having viewed a magnificent display of nature's purest sweets, and then allowing their eye to drop upon a promiscuous pile of wood, leather, tin, and iron, would no doubt wonder what that has to do with honey. Fixtures are one thing, honey is another, then why not have them separately displayed. Some who read this twaddle will no doubt wonder when this picker came into so much supposed knowledge of apicultural exhibits, for they may say "he has never been an exhibitor" which is quite true. He has nevertheless been quite intimately connected with such exhibits the past fall, and he had his blind eye open. "See?"

Questions and Answers.

DEAR SIR,—On Oct. 8th, last, I received your kind favor in reply to enquiries I made as to prices of bee books, etc. Since then I have purchased two swarms of common black bees; one a first swarm, and the other a second swarm of same stock as first, and now I wish to trouble you further by asking information on several points. I have a copy of Root's A. B. C., but have not yet taken any bee journal, and here, by the way, I may say, I did not receive any copies of the "Canadian Bee Journal," which you said you had mailed on Oct. 8th. In first place, the bees I have are said to be exceedingly cross, and if I succeed in wintering them both, I want to Italianise them as soon as possible. One swarm is good and strong, the other is weak and has apparently very little honey stored. They are both in single board hives of the Jones type, I think the frames measure 13½ deep by 11 wide, 13 to the hive. I have placed them on a stand outside in garden. I have put them close together inside a packing case, with a space of about two inches all

around, which I have packed all around with wheat chaff. On top of the frames I have placed a piece of flannel. On top of that a lot of pea straw, and surmounted all with a weather proof cover lid. Possibly I may be asking you questions that a little research and study of Root's book would answer, but up to the present I have had very little spare time for reading, although I do it every available minute. First of all, I want to know if it is feasible to fill a jar, say a quart self sealer, with honey, and tying a piece of flannel or muslin over the top of frames, invert it on top of the frames having first made a hole through the flannel cover, and in this way feed the weak swarm. The Langstroth frames seem most generally used, but it seems to me that the Jones or Callup frame must be easier to handle and extract honey from without so much risk or damage to the comb. Kindly tell me which you use and which you consider best for all purposes.

Would you think it necessary, or at any rate advisable, for a "would be" apiarian to have in addition to the A. B. C. of bee culture "Cook's Manual," "Langstroth on the Honey Bee," also Quinby and Newman's books.

Would it be advisable on the first bright sunny day, when there is no frost, to open up the two hives, and take about two frames, say the two outside ones, from the full and strong hive, and transfer it with all bees attached to the weak swarm, or would you leave them undisturbed till spring, feeding them well until then?

I am intensely interested in bee culture, both as an interesting study and as a means of profit, and any information given will be gratefully accepted.

HENRY T. THOMPSON.

I have no use for the "Jones," hive. I began bee-keeping by purchasing 100 of these hives, and the last in the apiary was destroyed after removing the bees and cutting out the combs. The Jones' hive is too deep to use to the best advantage for super, and it is a great mistake to extract honey from the brood chamber. With the "Langstroth" hive I rarely extract from the lower storey of the hive. By taking the honey from the brood combs, we have first, the disadvantage of taking all the brood from the hive, and often throw out uncapped larve, and then if all the honey is extracted, the quantity

is not large, and when this is done, should the honey flow give out suddenly, the bees are on the verge of starvation. To begin with, a hive with the entrance parallel to the combs, does not ventilate as well as the Langstroth. I extract the Langstroth frame on its end, and having had an extensive experience with both frames I do not see that the Jones' frame has any advantage. Bees should never be fed liquid during the winter. If they are short of stores, make a cake of granulated sugar about one and a half inches thick and put this under the quilt, and resting on the top bar frames. If you are putting flannel next to the bees, you are making a great mistake, as the rough surface catches the bees and angers them. Do not try to change combs from one hive to another, especially if there are bees adhering to them. For packing I prefer dry forest leaves, chaff, straw, sawdust or planer shavings. The maple and oak are preferred to leaves that curl much, such as the chestnut or small leaves. The flannel is excellent above the bees, but a piece of cloth without fuzz, or a honey board should be placed next the bees.—ED

COMBS OF POLLEN.

Would you use combs half or two-thirds full of pollen. I had a hive of bees that died this last winter, the combs of which were all two-thirds full of pollen.

Was that the cause of the bees dying? Would you use such combs to put a new swarm on.

JOSIAH WHESTONE.

I am afraid I cannot give a very satisfactory answer to the above question. The amount of pollen varies in localities. If it is a usual thing for you to find so much pollen in the combs, you evidently have plenty of pollen without supplying it. In that case I would cut the pollen out and render the wax out of the comb. There is a way of getting the pollen out, without destroying the comb. Mr. F. A. Gemmell gave it in a previous number of the Canadian Bee Journal but it requires a stream of water. A force pump would do. From the way in which the question is put I suspect that it is not a usual thing

for you to have combs half filled with pollen. If this is the case I would suspect that the colonies had been queenless in the fall of the year, the combs had become clogged with pollen and as a result of their queenless condition the colony perished. If this is the case I would put the combs of pollen in some brood chamber not overstocked with honey in the spring.—Ed.

Will you be so kind as to answer the following questions in the Canadian Bee Journal. I am a subscriber and a beginner in Bee Culture.

1. Will a queen, when once fertilized, stay fertilized as long as she lives, or does she need to meet the drones every summer?

2. Is it necessary to give a colony of Bees, that has a queen with clipped wings, another queen in the fall of every year?

3. Explain the best method of wintering bees in this northern climate (Muskoka). WM. BRUNNE.

1. A queen once fertilized never meets the drone again.

2. The fact that the queen has her wing clipped or not clipped has no influence upon the length of time she should be kept. I do not believe in the practice of changing queens every year and this advice applies particularly to beginners who should avoid everything which increases the risk of having a queenless colony.

3 This is a big question. I should give the preference to a cave in a side hill, failing this a good cellar under a dwelling house. The more of the compartment there is under ground the more even the temperature. If you are in a portion of Muskoka where the above conditions cannot be secured, I would winter outside in outer cases, packing between with leaves, a small entrance say one-half inch wide breaking the sealed quilt loose sufficiently at the top to allow moisture to escape upward. Pack 10 or 12 inches of leaves at the top, lean a board over the entrance and let the snow cover the entire outer case until the thaw sets in when it should be removed.—Ed

Bee Keeping and the Production of Honey.

FROM THE AUSTRALIAN AGRICULTURIST.

Notes of an Address delivered by Mr. W. S. PENDER, West Maitland, before the Hunter River Horticultural Association:

I propose to describe the method of producing honey with the "Langstroth hive," and will afterwards continue the subject, and describe what I consider a more economical and profitable method. Before we commence beekeeping as a commercial pursuit, it will be necessary for us to know something about the general characteristics of the bees and the manners and customs of the bee nation. It would be useless for us to attempt any interference with their habits if we are desirous of getting them to store their sweet for our use; and the more a person has to do with bees the more he finds that it is in assisting the bees to work in accordance with their own instincts the profit from them is obtained, rather than in trying to coax them in any other way to do what is against their nature. The box provided for the habitation of bees is called a hive. When the bees have settled themselves in the hive they are known as a colony; hence, when a beekeeper speaks of having so many colonies, he means hives in which bees are at work. We will now look into the inside of a hive in which has been occupied by a colony of bees for some time. We first notice that there are a number of combs built more or less irregularly across the hive, about half an inch apart, and suspended from the top. These combs are made up of hexagonal cells, in which the bees raise their young and place their stores. The cells vary in size. The smaller cells are those in which the worker bees are nursed during their development from the egg, and measure five cells to the inch. The larger cells are the cradles of the drones, and measure about four cells to the inch. Different colonies and strains of the honey bee may build cells slightly different in size, but the sizes I have given may be taken as the average. If we were to look through the colony we should find one bee very much longer than the others. This is the queen, or mother of the colony. She is the only perfect female in the hive, and lays all the eggs for the colony, which are in-

bated by the heat maintained in the hive by the worker bees—or imperfect females—many thousands of which occupy the hive. These bees attend to the feeding and nursing of the young, do all the work of the hive, such as keeping it clean, defending it, building combs, and gathering everything required for the needs of the colony. There are also bees much larger than the others, which are credited with being lazy and of no use in the hive, viz., the drone or male bee; he is much broader than the worker bees, and when he flies generally makes a loud buzzing noise. His sole function seems to be to fertilize the young or virgin queens. The egg as laid by the queen is covered with a glutinous substance which dries quickly, causing it to adhere to the base of the cell where deposited. About the third day a tiny larva hatches from the egg, which is fed by the worker bees on a milk food for two or three days, after which it is weaned and fed on a mixture of honey and pollen. The larva is full-grown at about the eighth day from the laying of the egg. No more food is given to it, and, to protect it while undergoing the transformation to the perfect insect, the end of the cell is covered over with a capping made of wax and pollen. This capping is slightly rounded on the worker cells, and spherical on the drone cells. On the twenty-first day the worker releases herself from the cell by gnawing off the capping, the drone requiring a few days longer to develop. The queen is raised in a different shaped cell—something like an acorn, and the open end points downwards. She is fed during her larval life, viz., up to the eighth day, on the milk food previously mentioned; the cell is then sealed over, and she emerges a perfect queen on the sixteenth day. Queens are not reared unless the bees intend to swarm or wish to replace their queen, who may have been accidentally killed, or who is getting too old and feeble to attend to her duties. If the bees intend to swarm, a number of queen cells are generally constructed. On the eighth day the first queen cell is sealed. The bees now reach a state of great excitement. The queen has been decreasing the number of eggs laid for a few days, and on the following—the ninth—day the old queen goes off with a swarm to found another colony, accompanied with the majority of the bees old enough to follow. The young bees unable to follow the swarm, and those rapidly emerging from the cells, are sufficient to care for the brood and queen cells left in the hive. On the sixteenth

day, i. e., the seventh day after the issuing of the swarm, a young queen emerges. As soon as she has gained strength enough to look through the hive, she will run all over the combs in search of queen sisters to destroy them. If the bees have decided to swarm again, they will confine her in the cell until all is ready for leaving the hive, when a “second or “after” form will issue. Often several virgin queens will accompany these after swarms, each having been confined until all was ready to leave the hive. When several virgin queens accompany a swarm, it is a case of “the survival of the fittest,” for only one queen is required in the new colony. The after swarm does not leave the parent hive without providing for its future welfare, for a queen cell is left in the hive from which a young queen will emerge in a few days. These young queens leave their hives when five days old (weather permitting) to meet the drone, and when mated together do not again leave the hive unless with a swarm. She will lay during the remainder of her life as required by the bees, from a few eggs to two or three thousand eggs daily, according to the quantity of prepared food given to her by the workers. The queen frequently lays three times her own weight in a day. The commercial products of the bee-hive are honey and wax. The former is the principal food of the bees, and is gathered by them from the nectararies of flowers and conveyed to the hive in their honey sack or second stomach, where the natural nectar undergoes a chemical change, due to an addition from the salivary glands situated in the heads of the bees. The honey is placed in the cells of the comb, where it remains by capillary attraction. As gathered by the bees, the nectar contains too large a proportion of water, and, unless some of the water were removed it would soon ferment. Bees evaporate the surplus water from the honey, partly by keeping up the temperature of the hive, and partly through digestion when removing it from one cell to another. The nectar is gathered by the bees for food, and what is not immediately consumed is stored away for future use, when food supplies may be scarce. Nature has given the bees this instinct to provide for its future, and it is this supply the beekeeper takes for his trouble. In order to facilitate the labour of the beekeeper, hives are conveniently constructed, and by the working of these hives with a perfect understanding of the habits of the bees, large crops of honey

are often taken from single colonies. During some seasons climatic conditions are such that very little nectar is secreted by the flowers, or so much water is mixed with the nectar as to require considerable evaporation. In other seasons the beekeeper reaps a harvest, and it is not uncommon for an average of over 400lbs. of honey to be taken from each hive in an apiary of 40 to 80 colonies during one season. Beeswax, of which the combs are constructed, is a natural secretion of the bee, produced by eating honey while the bees remain in a state of quietude. Bees do not gather wax from the flowers, as is often supposed. That colored matter carried by bees on their legs, and often on their backs, is not wax but pollen, which, mixed with honey, is used for food for larval bees. When bees are wax-making they cluster and hang in festoons in the hive, and consume a large quantity of honey and generate considerable heat. The food consumed is converted into wax, the same as fat is accumulated by well-fed animals, but, instead of the wax forming the part of body, it exudes in the form of small thin scales from between the segments on the underside of the abdomen. These segments are known as wax pockets. To produce 1lb. of wax it is variously estimated that the bees have to consume from 10 to 20 lbs. of honey.

OBITUARY.

In the wreck of Mohegan, near the Lizard, Cornwall, Helena Mary, aged twenty-seven, eldest daughter, and Herbert Francis, aged twenty-four, second son of Thomas William and Fanny M. Cowan, of Hampstead. "Not lost, but gone before."

The above announcement, copied from the ordinary first column of the Standard of the 19th inst., was written by our senior editor himself, and is inserted here because of some regrettable errors in the newspaper accounts regarding Mr. Cowan's connection with the disaster, which have, at least, caused misleading confusion, and give some pain to both himself and his friends. The latest instance of this—giving force to my words—occurs in the Standard of the 23rd, wherein it is stated that "the bodies of Mr. and Mrs. Cowan have been recovered." Having said this much, it devolves upon me to perform a sorrowful and somewhat delicate duty to readers as follows:—

On Saturday last I saw Mr and Mrs. Cowan at Euston, when they left by train

to join the Cunard liner Etruria, bound for New York, the travellers being en-route for Loomis, California. In conversation prior to the train leaving, the question naturally arose as to what should be said to readers of the Bee Journal about the sad bereavement which had befallen the family. I was anxious myself regarding this, knowing Mr. Cowan's deeply-rooted objection to publicity for himself in print. But the matter could not be ignored, and so I thought it best to put the question by asking: "What can I say in Thursday's Bee Journal about yourself after all that that has happened?" I half feared the reply would be, "Nothing," but after a moment or two he answered, "Well, say what you like, but not too much."

This I will try and do, but in doing it have decided, so to speak, to leave the editorial chair and the editorial "we," and address our readers as personal friends, who, like myself, are sad enough at the pathetic break in a happy family by the disaster, but anxious to know a little more on the subject than people who are not bee-keepers. The simple facts, then, as they occurred regarding our senior editor's son and daughter on board the ill-fated steamer Mohegan are as follows:—

Mr. and Mrs. Cowan had arranged to pay a lengthened visit—accompanied by their only two daughters and second son—to America, where their eldest son owns a fruit firm, in which his father is much interested, at Loomis, California. The voyagers thus included all the members of Mr. Cowan's family except the youngest son, who is a pupil at the engineering works of the Great Northern Railway, Doncaster. Probably all would have travelled from Live pool in the Etruria, but the two young people who were passengers on the Mohegan, being fond of the sea, chose to take the longer voyage from London and meet their parents at Chicago, Mr. Cowan himself having arranged to pay a promised visit to some American and Canadian bee-keepers on his route to that city.

On Thursday, the 13th inst., he saw his children depart on board the Mohegan from the Tilbury Dock in high spirits and full of happy anticipation of their next meeting at Chicago. It was his intention to join Mrs. Cowan at Doncaster on the following Saturday and spend the intervening few days there with their youngest son referred to above, the latter being the only member of the family thus left in England. But how true is it that "Man proposes but God disposes."

Saturday brought news of the loss of the *Mohegan* off the coast of Cornwall, and the day was spent in anxious suspense by all who had relatives or friends on board. At 9.30 p. m. I received at my home a "wire" to say that Mr. Cowan and family had gone from Paddington to the scene of the wreck, and on Monday our worst fears were confirmed. I, of course, at once wrote to Mr. Cowan, but a note from himself crossed mine, in which I learned that the worst had happened, but that he had recovered the bodies of his children, not bruised, as so many were, but placid, as if sleeping peacefully, and he was thankful. I pass over what immediately followed, except to say that they were buried on the 19th inst., at the little village church of Budock, close to the scene of the disaster, the family returning to town the same day.

I saw Mr. and Mrs. Cowan at Hampstead on Thursday and found them full of gratitude for the many letters expressing sympathy with them in their bereavement. Not a few have reached this office conveying similar sentiments. One, inserted on page 428, will probably suffice as expressive of the feelings of our readers, and knowing how greatly Mr. Cowan regards the good wishes of bee-keepers, I ask them to accept, on his behalf, this acknowledgment of their kindness. In conclusion, and as Mr. and Mrs. Cowan, with their only remaining daughter, are now on the Atlantic on their way to California, where they proceed direct from New York, I hope to be pardoned for quoting a few words from a note to myself, written by Mr. Cowan on board the *Etruria*, after leaving Liverpool, and thus conclude.

The extract reads thus:—I can hardly realise that so much has happened since last Saturday, and that everything has been so ordered as not to prevent our joining Alex. as soon as possible. When we think of how others are suffering who have not found their friends, or have found them mutilated, how thankful we are that ours were spared all suffering, and that we were able to recover their precious remains so soon. Now we are on the sea, but 'in the hollow of His Hand,' and trust in Him who doeth all things well."

The above words are more characteristic than any I could write of one for whom so many of us feel a love and esteem seldom given to a single individual in this world.

W. BROUGHTON CARR.

In The British Bee Journal.

A Lady's Fear Regarding Foul Brood.

I am very nervous about foul brood in my apiary, for you will see from Mr. Hamlyn-Harris' account in your Journal that I had most unfortunately brought two infected hives into my garden to manipulate. They were promptly cremated, but for twenty-four hours my bees and theirs had been promenading together on a magnificent row of echinops close by. So this explains an abnormal anxiety on my part. All the brood that there is (there is very little) in my twenty-nine hives is perfectly healthy as far as I can judge; all the young larvae curled up in tight little "c's" and the older looking plump, white, and quite healthy—no flabby, straight, or yellow things. But yesterday, on examining No. 14, there was one cell not hatched out, and when I uncapped it with my penknife, to my horror! a little coffee-coloured substance, not very thick, greeted its point, and I removed a dead, slightly yellowish (more cream coloured) dead nymph (?) (i. e., quite formed young bee). I immensely regret that I followed my impulse, and promptly buried it and my knife in the soil—which I have great faith in as a disinfectant—instead of preserving and sending it to you. But I send you a bit of the comb in which it was found, and the cell it occupied has the tiny bit of paper in it.

1. Do you find any trace of the bacillus in it? Does chilled brood, under exceptional circumstances, evolve any coffee-coloured liquid in its decomposing process? My faint hope is that this was a chilled bee, for I had rather much chilled brood in one or two hives some time since owing to cold nights. I would also say when I opened this, and (after changing my dress, etc.) some other hives, the bees seemed rather lazy and stupid, and had a slight inclination to fall from their perches on to my lap!
2. May this be the effect of naphthaline, for when I had this scare of foul brood I put two little balls (four halves) in each hive, and I fancy it made the queens leave off laying, and a general sleepiness appear on the scenes? Or is this natural at this time of the year? I fancy one ball in half is quite strong enough a dose at this time of the year.
3. What do you think?
4. The bees enclosed are from same hive. Can you find any trace of disease in them?
5. The little wingless *lusus naturæ* (in separate division of mortuary) is evidently recently hatched. Is it deceased?
6. If you find any trace of *B. alvei*, should I re-queen (I can find neither queen nor eggs), and put on new comb and feed

with medicated syrup, as they are a strong lot with heaps of stores. Or, at this time of the year, with no natural food coming in, would it be better to destroy bees and disinfect hive? After putting in the two balls of naphthaline I had two cases of overdose—i. e., uncapped nymphs, quite white and healthy, and the edges of cells slightly higher than normal.

P. S.—The third little packet contains a substance found at the bottom of the only sealed cell in No. 20. Is it dried pollen, or the foul brood "scale," or only the remains of the cocoon lining membrane?—"QUEEN BEE," Bridport, October 6.

REPLY.—1. We find no trace of foul brood in comb. Chilled brood will go dark grey, but in its advanced stage it turns into a powdery substance, whilst with foul brood it turns to a sticky matter, and can be drawn out in strings, so to speak, with the end of a match. It is, no doubt, chilled brood in your case. 2 and 3. With regard to the "stupid" appearance of the bees, we ascribe this to the late season; they want to rest, which is quite natural. Two balls of naphthaline in four pieces is the right quantity for a strong stock. 4 and 5. No; the little bee is an abortive production, consequent upon insufficient warmth to bring it to maturity. 6. Not under the circumstances. The little packet contains only the remains of cocoons of bees bred, perhaps, long ago.—The British Bee Journal.

An Apiary Tent.

—J. F. DUNN.

Perhaps some of the readers of the C. B. J. might be interested in a description of a tent that takes the place of a honey house at our "Split Rock Apiary," four miles out of town. In this tent we keep our empty combs, do our extracting. I very much prefer this tent to a honey house, as it is cooler in hot weather and it has much to commend it on the score of economy, as it costs very little. Our tent is 9x14 on the ground, 6 ft. high at the ends, two boards 1 in. x 12 in. x 14 ft. are placed edgewise on the ground and 9 feet apart; to one end of these boards nail a board 1 in. x 12 in. x 9 ft. and to the other end a board 1 in. x 12 in. x 6 ft. This leaves a space at the end for a door in the corner 3 ft. wide. This door is simply a frame of 1 in. x 3 in. x 3 ft. wide and 6 feet high.

Place the door in position, and about two inches from the outer edges of one side on the top and bottom rails of the door, bore a hole $\frac{1}{2}$ in. down through the edge of the top and bottom rails and a corresponding hole through the frame work at top and bottom of the door, drop a $\frac{1}{2}$ x7 in. wire spike through these holes and your door is hung and will open out or in. To the 1x12 in. boards above described, nail a 1x4 in. piece 6 ft. long in each of the four corners, and one same size in centre of the 14 ft. lengths, and to the top edge of these 1x4 in. upright pieces nail a "plate" 1x4 in. clean around the frame, cut 1x4 in. rafters, $\frac{1}{2}$ pitch and nail them edgewise to the "plate." A 1x4 in. belt is now nailed clear around the frame just far enough down from the plate so that a 30 in. screen of mosquito netting will catch the edge of the belt, and this screen is nailed clear around the frame, door included. The balance of the space is boarded to the ground with $\frac{1}{2}$ in. siding, and for a cover for the roof we used white duck. Extending about 18 inches over the eaves are ropes four on each side fastened to the cover and pegged to the ground; this is necessary as in wet weather you must slack the ropes, or your cover will split. The waste room under the roof is utilized to hang empty combs and brood frames in by nailing 1x4 in. pieces edgewise, the proper distance apart to catch the top bars of the frames. This tent we found to do nicely for 100 colonies spring count, but it would be better if 10x14 ft. When the season is over we strip the frame, and the netting and duck is alright for another year. I might have added that a double cover is preferable for the roof, let them touch on the ridge and no other place, that is have the outer one say a foot above the inner one at the eaves and your tent will be very much cooler and perfectly dry. We use this arrangement at our outapiary four miles out of town, where a honey house is not a necessity. We do our extracting in it, and if we had a honey house there, I am sure we should want the tent also. I feel quite sure that if any one who has sweated all day long in a honey house would try the luxury of the tent I have described, they would vote it a necessity.

Ridgeway, Ont.

[Mr. Dunn has given us in the above a very pleasing and instructive article. Our readers will congratulate us in having induced a man so prominent in the past to take up his pen again.—ED.]

Annual Meeting ❀❀❀❀❀

OF THE **ONTARIO BEE-KEEPERS'**
ASSOCIATION ❀❀❀❀❀

TO BE HELD IN THE

❀❀❀ City of Guelph, on 6th, 7th and 8th December, 1898.

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STREETSVILLE, Oct. 20, 1898.

Editor Canadian Bee Journal.

Dear Sir,—You will please find enclosed the programme of our annual meeting somewhat altered from the previous copy which please correct.

It is almost certain that there will be a large attendance of bee-keepers at our annual meeting, owing to the different attractions in the City of Guelph at the same time.

The Guelph Fat Stock Show, the Guelph Poultry Show, the Experimental Union will meet the same time.

There are many places of interest that the bee-keepers may visit, such as the Ontario Agricultural College and Experimental Farms; the Bell Organ factory, the Goldie Flour mills. The mayor of the city assures me that the bee-keepers will be privileged to visit these different places.

The citizens of Guelph extend a cordial welcome to the bee-keepers of Ontario, to meet in their city.

Having met the president of the Guelph Fat Stock Show and the secretary of the Experimental Union, we arranged to all club together for railroad rates, the understanding being that the secretary of the Fat Stock Show would make application to the different railways for rates. By clubbing we are almost certain to have over a hundred delegates, which will give a return at one-third rate to those holding certificates and it is very likely that there will be three hundred delegates in all societies, which will give a free return.

Delegates should bear in mind that if cut rates are being used, that they go as other rates, so persons near cut rate points will take advantage of them.

Trusting we may have a large attendance.

W. COUSE,
Sec'y, Streetsville.

...PROGRAMME..

TUESDAY, DECEMBER 6TH

- 2.00 p. m.—Reading minutes of previous meeting.
 2.30 “ —The President's address; Mr. J. B. Hall is invited to open discussion on the address.
 3.30 “ —Paper by H. G. Sibbald of Cooksville, on “Spring Management;” Mr. D. W. Heise invited to open discussion on this paper.
 4.30 “ —Paper by W. J. Brown, of Chard, on “Summer Management;” Mr. Jas. Armstrong invited to open the discussion on Mr. Brown's paper.

Evening Session.

- 8.00 “ Jas. Fixture of the Experimental Farm, Ottawa; paper on “Some Experiments on Wintering Bees. W. J. Brown to open the discussion.
 9.00 “ Paper by F. A. Gemmill on “Rational Methods of Extracting Wax;” W. A. Chrysler is invited to open the discussion on this paper.

WEDNESDAY, DECEMBER 7

- 9.00 a. m.—Official Reports and Communications.
 10.30 “ —Paper by W. Z. Hutchinson, of Flint, Mich., on “Management in Swarming Season;” A. E. Hoshal invited to open discussion on Mr. Hutchinson’s paper.
 11.15 “ —Paper by R. F. Holtermann “Honey for Market;” Mr. Gemmell is invited to open discussion on this paper.

Afternoon Session.

- 2.00 p. m.—Paper by J. K. Darling on “Making Our Association More Useful;” Mr. Jas. E. Frith invited to open the discussion on this paper.
 3.00 “ —Election of officers.
 4.00 “ —Paper by J. D. Evan’s, of Islington, on “The Rascally Supply Man;” Mr. Jno. Newton invited to open the discussion on Mr. Evan’s paper.

Evening Session.

- 8.00 “ —Paper by Dr. A. B. Mason, of Toledo, Ohio, on “Thoughts by a Novice;” Mr. C. W. Post is invited to open the discussion on this paper.
 9.00 “ —There have been prominent gentlemen invited to give addresses.

THURSDAY, DECEMBER 8

- 9.00 a. m.—Paper by R. H. Smith, of St. Thomas, on “Management of Comb Honey;” Mr. J. Sparling is invited to open the discussion on Mr. Smith’s paper.
 10.00 “ —Unfinished business and new business.

Haldimand Bee-Keeper’s Association.

The annual meeting of the Haldimand Bee-Keepers’ Association was held at Cayuga on Saturday, October 29th, 1898, when the following members were present—Robt. Coverdale, President in the chair, and Messrs. Armstrong, Atkinson, Overholt, Stewart, Wismer, and the Secretary.

Minutes of last meeting read and confirmed.

The Auditors’ report was adopted, showing a balance on hand of \$23.35.

The following officers were elected for 1899.

President—Wm. Atkinson.
 Vice-President—Israel Overholt.
 Sec.—Treas.—E. C. Campbell.
 Directors—Jas. Armstrong, R. Coverdale, Isaac G. Wismer, Alex. Stewart.
 Auditors—J. H. Best and Jas. Jack.

Moved by Mr. Overholt, seconded by Mr. Wismer, that Messrs. Stewart and Atkinson be appointed delegates to the Ontario Bee-Keepers’ Association.

WINTERING BEES.

Mr. Armstrong opened this subject by saying that the first necessity for successful wintering was a good strong colony, with a good queen and plenty of stores. The next was plenty of packing, both above and below, and on the sides and ends, so as to keep out frost and pre-

vent the honey becoming sour in the hives. Dampness, caused by frost, was the cause of most of the loss in winter. In answer to a question, he said there should be 30 lbs. of honey to each colony when put away for winter.

Mr. Overholt said he would prefer 25 lbs. to 30, for fear that in the spring there would be too much honey, and the queen not have room to lay, but the opinion of the meeting was that there was no danger on that account. Mr. Overholt’s idea was that the value of the extra five pounds in each colony would be better in his pocket than in the hives.

Mr. Wismer gave his method of wintering, which was much the same as Mr. Armstrong’s.

Mr. Atkinson said he would prefer 40 lbs. of stores to either 25 or 30, and he advocated plenty of packing—leaves, sawdust, or anything dry.

The question as to whether honey or sugar syrup was best to winter on, was discussed by the members, and it was concluded that bees fed on sugar wintered better than on honey, as they were less liable to have dysentery, which is a fruitful cause of loss.

Moved by Mr. Atkinson, seconded by Mr. Stewart, that our next meeting be held at Nelles’ Corners on the third Friday in May.

E. C. CAMPBELL, Secretary.

The Value of Honey as a Food.

How many, outside of those who make bee keeping a study and a business, realize the value of honey as a food for the human body? The analysis of pure honey shows 37.58 per cent. of dextrose; 36.23 of leonlose; 26.06 of water and .14 of ash. According to this, the essential constituents of honey are dextrose and leonlose. One of the advantages of honey as a food over other foods, such as cane sugar, is that these constituents are in a form ready to be absorbed by the system. In the analysis of honey the ash invariably shows from .01 to 3.05 per cent. of phosphoric acid, an indispensable ingredient in the food of plants and animals, and of immense importance in the human organization, forming essential constituent of the brain, nervous, and other tissues.

According to a writer in The Jamaica Journal, honey is cheaper there than butter, and is recommended as a substitute for the latter for poor people. Bees can be kept very easily and, if properly understood, require comparatively little attention. The writer above referred to sums up the advantages of bee-keeping and honey in the following order: (1) Honey is food in a form very readily taken up by the system. (2) Honey is a carbo-hydrate, and as such, is a producer of energy and heat in the body. (3) Honey is a cheap food. (4) Honey is invaluable for young children especially. (5) Honey may be made a therapeutic agent of marked value in medicine.—Farming.

Effects of Bee Stings.

A PHYSICIAN'S ANTIDOTE.

Your correspondent, "F. C. (Derby)," asks in B. J. of July 28 (p. 294) whether some of your medical readers will advise a course of treatment for bee stings. I have much pleasure in answering his communication. The unpleasant results from the sting of a bee are due to formic acid. An antidote must therefore be sought for in the application of an alkali. The sting is left in the flesh with the poison-bag attached; don't remove it with finger and thumb, as by so doing you squeeze the bag and empty the rest of the poison into the puncture; but take a penknife and scrape the sting out close to the skin, after which immediately apply the following mixture: Scrubb's ammonia, hazeline, and soft-soap, in equal parts.

Needless to say that the bottle should be kept handy when manipulating bees, as, unless the antidote is applied at once, it will be of little use, the poison being absorbed so rapidly.

I am sending you herewith a bottle of the preparation named in my letter. It should be kept well corked. Possibly you might like to try it or send some to "F. C. (Derby)"? If it is as successful with others as it has been with me, I shall be happy to give the readers of your Journal detailed instructions as to its manufacture.—R. K., in The British Bee Journal.

Annual Meeting of York Bee Keepers' Association.

At the Annual Meeting of the York Bee Keepers' Association held in Toronto on the 15th inst, the election of officers was as follows:—President Mr. D. W. Heise, Bethesda; Vice, Mr. J. F. Davison, Unionville; Sec'y.-Treas. Mr. L. Mapes, Headford. One valuable feature of the programme was an address by Mr. J. D. Evans, of Islington, on "Organization and its Benefits to Bee-Keepers". In the course of his remarks Mr. Evans outlined the whole work accomplished by the O. B. A. and other organizations in behalf of the Bee-keeping fraternity. But as we hope Mr. Evans will furnish his address in the form of a paper for publication, we will not comment on it further here. We wish to request that all members who were not present at the Annual meeting, and others who wish to become members, send in their names at once to the Sec'y. so that arrangements can be made for the premium Journals. The membership fee without the Journal is 50cts. and with a Journal 75cts.

LOUIS MAPES, Sec'y. Y. B. A.,

Headford Ont., Oct. 21st., 1898.

The Youth's Companion.

In the last number of the Canadian Bee Journal we made mention of the Companion's new calender of beautiful and tasty design. The Companion is an excellent periodical, and of interest to every member of the house that can read. Sample copies will be sent to anyone addressing the Youth's Companion, 211 Columbus Avenue, Boston, Mass.

Sheldon's Newspaper.

The Rev. Chas. M. Sheldon's books, now so universally read, make it plain that that writer's hopes of the regeneration lie in getting individuals more and more to do their daily tasks on Christian principles, no matter what the sacrifice involved. In the best known of his books, "In his steps," he clearly looks to the newspaper, carried on upon Christian principles as largely the hope of the "coming kingdom." In looking about him for a newspaper on his model, he seems to have hit on the Montreal "Witness," to which he wrote a letter, part of which we quote:—

"I have read The Witness with much interest. I cannot say that I know of any other daily paper in the United States that is conducted on such high Christian principles. I wish I did, for if ever we needed such a paper in our country we need it now.

"Let me express to you my appreciation of the Christian heroism and consideration which make a paper like The Witness a possibility. I have always believed it possible for a Christian daily to succeed. You have proved that it can. So much of the ideal newspaperer in 'In His Steps' is therefore real.

"I pray that you may continue to be blessed in your work. I do not know a more glorious opportunity for building up the kingdom on earth than by means of Christian journalism. I take the greatest pleasure in sending the copies of The Witness to newspaper friends of mine for their inspection.

"Very cordially yours,

"CHARLES M. SHELDON,

"Topck, Kansas.

The second volume of Little Folks opens with the November number, and gives a most charming frontispiece, a portrait of Mrs. Adele Fassett, the painter, in childhood, which also forms an appropriate illustration for the Thanksgiving verses entitled "To-morrow." A capital story for children, by Henrietta Eliot, is called "Little Overalls." "Through the Glass Door," by Mrs. Clymer, will please all imaginative little girls, and Miss Tucker's jolly story of "The Live Rocking Horse," is still more fanciful. One of the best juvenile poems lately written is contributed to this number, "A Car Trio," by Stephenson Browne. Marian Douglas and Lilla Thomas Elder both have Thanksgiving poems, "The Little Tin Turkey"

and "Said Sister Jane." All new serials begin in this number, of course, and, of course, are delightful reading. There is "Billy Boy Brown," the story of a little boy that was borrowed, and there is "The Roggie and Roggie Stories" for very little ones, by Gertrude Smith, author of "The Arabella and Araminta Stories," with hosts of little pictures, and there is a new dozen of Guessing Stories by the same Miss Johnson who wrote the Black Cat Guessing Stories. The new ones are about The Little White Dog. \$1.00 a year. S. E. Cassino, Boston. (Sample free.)

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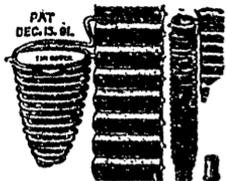
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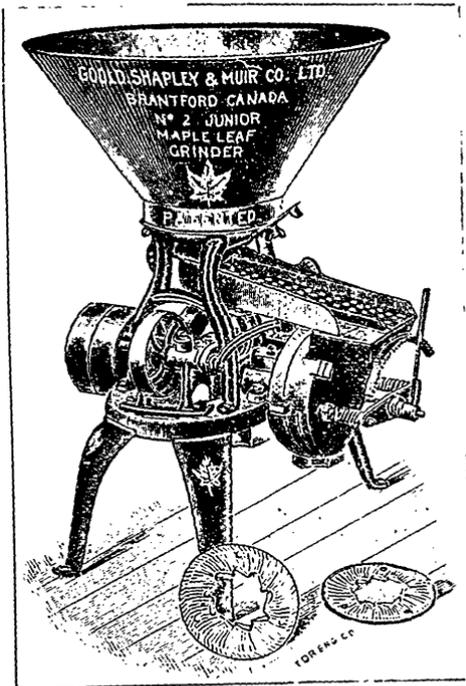
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