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CANADIAN BEE JOURNAL

PUBLISHED MONTHLY.

NEW SERIES
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BRANTFORD, ONT., JUNE, 1895.

WHOLE No.
361.

In the present editorial it is not our intention to advocate or condemn the wiring of frames, but rather

Wiring Frames. deal with the method.

We have for the first time made a thorough test of wiring foundation by electricity. It works beautifully. The frame is wired, the foundation attached to the top bar, the current is then taken from a private battery or an electric light wire and passed along the wire. The heat of the wire melts the wax sufficiently to thoroughly imbue the wire in the wax. We find some who have wired foundation have drawn the wire too tightly, the result can readily be imagined. There is likely to be more or less sag to the foundation, the wire if tight cannot give with the foundation and the comb becomes a series of wrinkles and a very indifferent comb is the result. When you wire, draw the wire loosely and better results will be obtained.

* * *

Although we have not watched very closely the fluctuations in price of beeswax in the United States, we

The Price of beeswax market. At

present we notice A. I. Root is paying 32c. in trade for good beeswax. We

also notice cash prices in the American Bee Journal April 25th, at New York and Philadelphia 31c. per

This brings wax to a higher price than it has been there for some time. In Canada as far as we know, the supply has

been quite equal to the demand. At the same time it would be well for those who require foundation to order in good time and avoid disappointment. In Canada not many years ago it was about impossible to get comb foundation. As bee keepers become educated they learn to value and appreciate full sheets of foundation in sections and frames. Order early from your supply dealer.

* * *

We have another report that the Columbian Exposition Awards will be ready about

June 1. The diplomas

Chicago Awards, were ready April 1st.

They are a beautiful work of art about 22x18. The medals and and bronze are to cost about \$1.25 each and are not yet completed. We shall try and keep our readers posted upon this question.

* * *

We have before us a pamphlet "Foul Brood, its Causes and Cure," published by

the New Jersey State

Wm. McEvoy. Board of Agriculture.

We are very much pleased to note that the author is our Provincial Foul Brood Inspector, Wm. McEvoy, Woodburn. We understand he was engaged by the Board to write the pamphlet, a high and well-merited tribute to Mr. McEvoy as an Inspector and as a bee keeper, having successfully battled in many apiaries the foul brood disease. Just here let us say some of our readers may expect to see some comments upon the

controversy between Mr. Clarke and Wm. McEvoy, in the American Bee Journal. As a man who is a government official and has done his duty fearlessly, Mr. McEvoy deserves support. As far as we know bee-keepers everywhere uphold Mr. McEvoy in this case and those who appear to know say the inspector was long-suffering and erred rather in the direction of allowing Mr. Clarke to experiment with foul brood and give too long rather than too short a time to stamp out the disease. Such references are unpleasant, but we think they are simply just to the inspector, even, if not necessary to assist in sustaining him in his work.

* * *

We always like to see a bee-keeper or one who has shown a deep interest in bee-keeping attain to positions of influence. We know that Dr. Montague, M. P., for Haldimand, is now the Hon. W. H. Montague, Sec. of State. But it is not generally known that the honorable gentleman is a member of the Haldimand Bee-Keepers' Association a convention report of which is found in this number, and takes a deep interest in bee-keeping. When Dr. Montague was editor of The Canadian Farmer he was the first one to solicit articles on bee-keeping from the writer of this editorial, thus starting us in apicultural writing for which we have been grateful ever since.

* * *

In the American Bee Journal we find the following: The Illinois Appropriation for the benefit of the Illinois State Bee-Keepers' Association has not been granted. The following from Secretary Stone explains the matter:

DEAR BRO. YORK:—Our hopes of getting our appropriation bill through the House are blighted. Last Thursday, April 11th, the appropriation committee reported it back to the House, recommending that it do not pass. I would think it all right, considering the condition of the state treas-

ury, for them to cut off all appropriations possible, if it were not for the fact that those engaged in the different agricultural pursuits of the State pay the largest share of the taxes, viz.: those immediately engaged in agriculture, those in horticulture, dairying, bee-keeping, etc. And yet, when it comes to making an appropriation for any of these, they fight to the bitter end.

The dairymen fared the same as the bee-keepers, and the horticulturists are not sure of anything much better. Their bill has been twice favorably reported back to the House, and then recommitted each time for the purpose of defeating it, or cutting it in two.

These "public servants" (?) of ours who pretend to work for the interests of the "dear people," think nothing of voting an appropriation to build a monument for some dead man, or of adjourning to go home and spend five days (from Friday morning to Wednesday morning) at a cost to the State of over a thousand dollars a day; but when it comes to voting to help some agricultural interest to spread its information for the good of the general public, I for one fail to see where they represent us.

The three bills spoken of above, are all Senate bills. Ours passed the Senate without any trouble, where two years ago it met its defeat. At that time one of the Senators had promised his aid, and then because the party line was drawn, went back on his promise. The same Senator we invited this year to "stay at home," though he spent much money to get back again. We are in favor of inviting some of the House appropriation Committee to stay at home next year. We will not name them publicly, though we have many bee-keepers in their districts.

JAS. A. STONE, Sec.

So far as I can see, the only way for agricultural and other deserving people to get their rights is to hereafter send only such persons to make the laws as will care more for the interests of their constituents

and less for personal interest and ease. Thousands of dollars are often voted for needless things, yet when a few hundred are really deserving and necessary, it is withheld. I, for one, am willing to give the women a chance to try their hand at doing justice, and let the men stay at home until they are fully rested and informed about the needs of the best part of our population—those who live and work on farms.—Editor A. B. J.

[We would hardly care to see women in parliament, but we would like to see as many men as possible in positions of influence, who recognize the importance of bee-keeping and all agricultural pursuits. In Ontario we fortunately fare better than in Illinois. With such men as Dr. Sproule the Honorable Secretary of State and many others we may hope to have the bee-keepers interests looked after in the Dominion House.

Hiving Absconding Swarms.

—S. T. Pettit.

I always did like to run perpendicular to some heavy opposing force and especially so when I know I am on the winning side. And this time it is my good fortune to oppose the views of my good friends Messrs. R. L. Taylor and B. Taylor—both eminent for experimental work.

Now, if I understand the writings of these friends, they both hold that if a swarm of bees take it into their heads to leave for parts unknown that the ringing of bells or other noises has no effect in thwarting their purposes—they will go all the same.

Now, I may be allowed to say that about fifteen years of successful practice without losing a swarm when I had a fair start with them proves beyond a doubt to my mind that absconding swarms can be secured.

I tried shot gun and mirror, and as these failed, I then framed a square yard of wire cloth and secured it to the end of a light pole thinking that if I should "swipe" the leaders down the swarm would be confused and settle; but this failed also.

From my first Italian queen I re-queened a large number of hives; of course these

young queens all produce hybrids, but they were dandies, never had better bees but they evinced a strong desire for fields far away, and the sight of my best swarms with Italian queens rising higher and higher, then circling round with such wild determination, then stretching away out in a bee line for their new home overwhelmed me with feelings of admiration and grief.

Repetitions of these painful though majestic scenes set me to reasoning that man ought to be able to control these determined little absconders. I tried every device that seemed likely to succeed but the "clatter" and although the books and best writers condemned it, I thought I could see more hopes of success in great and continuous noise than all other efforts put together; therefore I resolved to try this one also. I drove out nine miles and purchased two feet of a broken mill saw; this I used with perfect success for a number of years but repeated blows with a hammer at last broke it, and then I purchased two good cow bells.

For handles I used stiff leather like harness tugs. With a bell in each hand and an even start we have not once in about fifteen years failed to save absconders and we have had many severe tests.

What I have done, others can do also in country places. The conditions are not favorable in cities and towns. A remark or two may be necessary. Always have the bells ready at hand. The trained eye can generally detect the intentions of the bees before they get a start. Now just so soon as you see the course they are after step right in front of the leaders and open fire. Now mind you there must be no cessation nor slacking, no not for a single moment, the job must be energetically and well done, and victory is sure. During the operation you must keep your eye upon the leaders and if they veer to go round you keep in front of them, in fact you must keep ahead of all the bees. Some few stubborn swarms may drive you forty rods or more but such cases are unusual.

Now, I suppose "advanced" apiarists will smile audibly; well, all right for if this article teaches some how to save their bees and gives merriment to others, I shall be well repaid.

April 17th.

Belmont, Ont.

In another column will be seen an advertisement by Mr. Jacob Alpaugh, Galt. That gentleman seeks to engage to run an apiary for some one. Mr. Alpaugh is a good bee-keeper and any one requiring such services can make no mistake in engaging his services.

Meeting of the Oxford Bee-Keepers' Association.

The above opened at the Court House. Friday, May 17th. The President, S. T. Pettit, in the chair. After the reading of minutes and other routine business the question of spring feeding came up. The question was asked. Is it advisable to feed from now May 17th until clover flow.

F. A. Gemmell—If you want swarms and plenty of bees it will pay.

Upon a vote being taken the majority were in favor of feeding at the time mentioned above.

Mr. Pettit remarked—Admitted that it does pay, one should be cautious not to feed too much so it would be taken into the surplus compartment. He also thought as a general thing it would pay to let the bees have a set back, destroy their queen-cells and give up the idea of swarming. Mr. Pettit then related how he fed his bees by sprinkling with a spray pump with a fine nozzle, syrup upon the grass, he did not feed them because they were short of stores but to excite them, he did thus every two or three days.

Mr. Gemmell thought there was such a break between fruit and clover he thought it well to feed a little loose honey between if a little is coming in, this is not needed.

A communication was then read, written by W. F. Clarke which appeared in the Mail and Empire condemning the proposed Pure Honey Bill before the House of Commons. The reply of R. F. Holtermann upholding the Bill was also read. After discussion strongly disapproving of Mr. Clarke's action, the following was moved by Mr. Gemmell, Stratford, and seconded by Dr. Geo. Duncan, Embro, and carried without a dissenting voice.

That the members of the Oxford Bee-Keepers' Association read with deep regret the misleading and injurious communication in The Mail and Empire from the pen of W. F. Clarke, Guelph, re the proposed Pure Honey Legislation now before the House of Commons. Furthermore that we hereby endorse the action of the Ontario Bee-Keepers Association in the direction of getting the said legislation and we unanimously support the bill brought before the House by Dr. Sproule, M. P., and that said resolution be sent to The Mail and Empire

for publication and Dr. Sproule, M. P., at Ottawa.

ADDRESS BY F. A. GEMMELL, STRATFORD.

Mr. Gemmell then gave an address on his trip to California. On his way he passed through Kansas city and Albuquerque in New Mexico, stopping at the latter place two days. The vicinity, is not well settled and there are not many bee-keepers. His next stopping place was in California—San Bernardino. Here he saw several apiaries but did not visit much. From here after a rest he went to Los Angeles which is the centre of a great fruit growing district. Here he went to a bee-hive factory and was fortunate enough to find Mr. Geo. Baodbeck, a bee-keeper, who gave him the names of other bee keepers. He also met "Rambler" well-known through writings in Gleanings and other periodicals, he also met Mr. Dayton—On February 15th the bees had for some time been gathering just enough to stimulate them in brood rearing. After visiting a number of bee-keepers he fell in with Mr. Jacob Alpaugh, Galt, Ont., who went to California about the same time, the two visited J. H. McIntyre, Filmore, California, he was nicely located, being in a good district for honey and near schools and society, good localities for honey were usually isolated and bee-keepers spent six months or so with their bees and then returned home. Mr. McIntyre was close to the river Sespe on the other side of which was a valley a mile wide, in oranges. The mountains were back with sage, Mr. McIntyre had never moved his bees but last year the flow was so poor; he might move them during the present to get both spring and fall flow. He had quite a few invitations from bee-keepers but was unable to accept of many kind invitations. On his way from Los Angeles to Tremore he visited quite a few. There were good bee-keepers and some bees were kept in anything. Oranges began to bloom about April and continued to blossom for about three months some of the old fruit being yet on the tree, the fruit continued ripening for about six months. No many bananas were grown out there. Some oranges bore shipment better than others. Lemons were picked green for shipment. They get fruit bloom honey in April from oranges, peaches and apricots. About May 1st sage came in blossom from which the principal surplus was secured some was also secured from Alfafa later.

There was still in some districts where fruit was dried, trouble between fruit growers and bee-keepers. The hives were very poor, until lately good hives could

hardly be secured there. In some districts for health the climate was very fine, but he would advise those that were doing fairly well to stay at home, he had met those doing well and pleased with California and he had met others who would be glad to get away if they could. He thought bee-keeping was fairly remunerative, they secured about 4c per lb for their honey. The bees were mostly black. They had foul brood legislation and a foul brood inspector.

Did you find any skunks out there ?

No, but Mr. Alpaugh did in a can of granulated honey.

Did it improve the quality of honey ?

I did not get a chance to sample it.

Do they take extracted or comb honey ?

Most extracted but some comb. Mr.

Gemmell saw quite a few hives almost square, also some Hoffman frames 7 in. deep, and some Heddon hives.

Do they use much foundation or put bees on starters ?

I can hardly say, probably many use starters.

Mr. Baodbeck uses full sheets as also do other advanced bee-keepers.

Did you see many box hives ?

Yes, a great many.

There were some very nice apiaries especially that of Mr. McIntyre. This gentleman is a Canadian and has a very fine eight frame extractor practically without bottom the honey collects in pipes and leads to a large tank. About four hundred colonies are in Mr. McIntyre's apiary. Mr. Gemmell gave an interesting address.

It was decided to take THE CANADIAN BEE JOURNAL for members of the Oxford Bee-Keepers Association, and also to affiliate with the Ontario Bee Keepers Association, the next meeting to be Friday, Feb'y 29th, 1895.

Experiences were called for.

J. B. Hall—I tried an experiment with seven stocks of bees on January 30th, I went to my Zorra apiary, the snow was deep I dug a hole about 2x1 feet at the entrance of these the entire depth of the snow, put a board on top of the snow, thus enclosing the hole. Of these one queenless was dead, the other six wintered well, three of them in winter cases were so strong they were hanging out the other day when ice froze three-eighths of an inch thick.

Spring reports were called for.

J. B. Hall—put in cellar 82; took out 82; wintered outside 68; lost 8; six were queenless.

Wm Martin, Belmont—wintered outside 120; took out 118.

Martin, Emigh, Holbrook—wintered in cellar 79; took out 78; some were queenless.

J. E. Frith, Princeton—wintered outside unprotect 30; lost heavily.

S. T. Pettit, Belmont—wintered in cellar 80; took out 80, one was queenless; wintered outside 7; took out 7; not so strong as in cellar.

Wm. Budd, Sweaborn—wintered in cellar 10; took out 8; 2 outside; all wintered.

Dr. Geo. Duncan, Embro—wintered in cellar 32; took out 30; 2 starved; wintered outside 40; 16 dead.

J. R. Tenant, Richwood—wintered in cellar 69; 66 came out; 3 starved.

F. A. Gemmell—wintered outside 102; took 99; lost three.

The report was taken when quite a few were absent.

S. T. Pettit—I have a guage to fit on side of hive, it has two holes near centre of hive I bore hole through sides of hive. I have a $\frac{3}{8}$ inch iron kept warm and bore through every comb, all alike and use this device every fall for outside wintering with large frames. I can bore 100 holes in one day, I have pins to close side holes of hives.

Mr. Frith, gave a report of five in his vicinity out of 146 only eight out of the lot were left alive.

F. A. Gemmell gave experience—had some sealed quilt, others lids raised a little others quilts and wooden covers, others wooden covers, leaves above all, only those with sealed covers had full entrance ventilation. Those with quilts and wooden covers were the best. If conditions are right below the quilt the bees were often all right.

S. T. Pettit, you want no upward ventilation but I want a foot by $\frac{3}{8}$ at the bottom. As a rule I found I could not winter as well with upward ventilation.

A discussion arose as to sealed covers and the advisability of having a space between the winter packing and the roof of case.

Mr. Gemmell asked when there were sealed covers would it not be best to have no air space above the packing and the outside cover. His arguments were that the sun's rays might penetrate through the cover and packing and assist in warming up the interior of the hive. He however claimed that the quilts must be sealed tightly otherwise this system would be a detriment.

Mr. Hall thought that it would be injurious to have no space above the packing because the packing would come in direct contact with the cold and the moisture

would condense as it struck the surface of the packing, in long continued weather the moisture would accumulate, claiming that practically no hermetically sealed covers can be found.

Mr. Gemmell thought in his case it would not be advisable to have too much packing and the packing should be of saw-dust and the outside cover pressing tightly on the packing and the outside cases painted a dark color in order to absorb the sun's rays.

He claimed the solar heat in conjunction with heat of the bees themselves would tend to dispel any moisture in the hive. This same could be made use of for building bees up in the spring, to paint single walled hives in this way would be all right in the spring but they would require to be shaded in the summer, he had heard of several cases when the combs melted down the cause being that the dark hive absorbed the sun's rays too much.

Mr. Hall mentioned that when unpacking his hives this week with the ice three-eighths of an inch thick the hives and surrounding leaves were very warm, he did not want his bees very warm in the winter and thought injury might be done in that way, they would breed too early.

Queen-Rearing.

THE RESULT OF THREE YEARS' EXPERIMENTAL WORK.

The preceding portions of this article may be said to contain a brief *resume* of such experience as has been acquired in carrying out a course of experiments (not a few still incomplete) having for their object the gathering up of all that is good in many methods of queen-raising and adding thereto such improvements or alterations of my own as have, in practice seemed to me desirable. The results have been given to readers of the B. J. in fulfilment of a promise, and although I fear that too much of your valuable space has been occupied in the endeavor to place my experiences on paper, I am not without hope that—when my experiments are further advanced—I may be allowed to resume the interesting subject. In a word, I shall go on trying to make my practice as perfect as may be, and "tell it out" to readers, if your pages are, as in the past, open to me.

There are, however, one or two matters upon which readers who are so inclined might bring their minds to bear, and publish the result of their observations for the

general good. I enumerate them as follows:

1. Why are queens bred late in the season a different color to those bred during the natural swarming time?

2. Why is it that there are two sorts of drones in a hive at one time (different in shape)?

3. From whence really comes the little black, shiny bees which are found in all hives at certain seasons of the year?

4. What is the—no doubt—far-seeing purpose which causes the change in the appearance of the worker-bees the winter approaches?

I mention these particular points—not yet satisfactorily cleared up—from a long list now before me which go to prove that the mystery of the bee-hive is still unsolved, and that there is a wide field in research for inquiring minds. I have certain data on all these queries, and have also some not quite definite theories as to the relation of queens and drones, but as yet no actual facts to warrant a positive assertion. We think lightly of the "cumbersome, lazy drone," but the full part he takes in the economy of the hive is not yet ascertained, and, to my mind, until this is known, and the drone is made an equal object of study with our queens, we cannot expect to attain the highest results in our craft.

I well remember on one occasion making up a small nucleus in which a queen-cell was affixed, and in this nucleus there was not a single drone; but about the eighth day after the queen had hatched I counted over 200 drones enter that hive, the noise and excitement at the entrance being something to remember.

I must not omit mention of another series of experiments made for the purpose of settling in my own mind the question as to what were the best bees for all purposes. I took the common native Black or German bees, Carniolans, Italians, and Cyprians. These last may be at once dismissed from consideration, as I found them vicious, delicate, bad winterers—in fact, possessing hardly a virtue to recommend them save perhaps, the beauty which is but skin deep. The Carniolan I found the best tempered bee of the lot, and those who desire increase or swarms it is no doubt the best of all bees, but for honey-getting, combined with good all-round qualities, I consider them far behind either Ligurians or Blacks. Both the latter-named bees seem to me to possess qualities which if combined, would produce a first-rate all-round bee. If the desire to swarm could be eliminated, the Italians, according to my experience, possess most virtues. I find them industrious

hard-working, good-tempered, disease-resisting and excellent winterers, storing honey and breeding after the Black bee has shut up shop for the season; but they swarm more than the Blacks. I don't say pure Blacks, because there is an unsurmountable difficulty in obtaining Black bees without more or less either of the Carniolan or Ligurian element in them, the Carniolan so largely dominating as to give them an inherent desire to swarm almost equally with pure Carniolans. Black bees, when only slightly tinged with foreign blood and and properly managed, are very satisfactory to keep—equal to any other bee that has come under my notice. Having arrived at this conclusion, I tried several crosses, and the best result obtained was from a hybrid composed of two parts Ligurian and one part Black, which produces a bee possessing all the good qualities of the former without the desire to swarm and spread out all over the ground in swarming, as the pure Ligurian so often does.

From a known pure strain of Ligurian bees the first queens were raised; these were crossed with as nearly pure Black drones as I could get, and from the resultant bees were reared the final queens. Great care, however, must be taken to get them mated to pure Italian drones, strangers in blood to those that raised the first queens. This done, I venture to say you will have been eminently satisfactory on all points—in fact, a bee that will make the heart of the honey-producer rejoice. Of course, the desire to swarm cannot be bred out entirely, but excessive swarming is certainly eliminated, and in my experience, they seldom raise more than two or three queen-cells at the best of times, and often not more than one.

As tending to show the vitality of the larve, after they have passed into the final stage—viz., after the cell is sealed and the cocoon has been spun—I removed one cool evening three queen-cells and placed them beneath my vest in a small padded box, to allow them the warmth from my body. They were taken a two and a half hours' journey by road and rail to the house of a friend and placed on the combs of the nuclei which he had ready to receive them. On examining a comb in one of the nuclei I found a capped queen-cell. I cut this out and placed it in the position lately occupied by the three-cells I had brought, and on arriving home three hours later I slipped it in between the top bars of a queenless stock. All four of these queens hatched out, were duly mated, and are at the heads of stocks now doing well. I merely mention this to show what can be done by studying a few

elementary principles and exercising care.

I must now bring my long story to a close; I have encroached largely on your valuable space, and, perhaps, on the patience of my readers, although the subject is by no means exhausted. I feel that enough has been said for one sitting. I say this, and reserve something for the future, because I know how easy it is—even with the most carefully-conducted experiments—for one to become impressed with a wrong conclusion, especially when appearances seem to favor the wishes of the experimentalist. This seems to be the case in bee-keeping more than in any other avocation or hobby with which I have had to do. It is easy enough to correct a mistake; but where is the one who, after having stated a thing as a fact, cares to climb down and admit he is wrong? We all have to do something in this line at times, and a man or woman who does this gracefully and admits an error without equivocation, is the one I should think most highly of. "To err is human; perfection is for the gods;" but our "facts" should be carefully verified by repeated proof before stating them as such in print, and thus causing perhaps much inconvenience and disappointment to others by our carelessness in not making doubly sure that "things are what they seem." Anyway, I have endeavored to speak of things as I found them, and have tried to avoid the belief that "all my own geese are swans." Practical experience is what I attach value to. Theory is often very pretty, but solid facts are incontrovertible, and to my mind one of these facts is that the raising of queens by scientific methods is the keystone to successful apiculture in the future.—HENRY W. BRICE, *Thornton Heath, Surrey, in British Bee Journal.*

Worth Repeating.

Victoria Colonist: The only way, then, to prevent the spread of plausible but mischievous theories, is to educate the people better. They must be taught to think, to distinguish sound argument from specious fallacy, and they must know enough to discern between fact and falsehood. Young people must learn to distrust hasty judgments in themselves and others. They must be taught that jumping at conclusions is always a foolish and often a dangerous pastime. But this is slow work, it will be objected. So it is, but people must be content in this world to do some things slowly. What is done in a hurry is seldom done well. The process of true education is slow.

Reports.

MAY 4th, 1895.

Please find enclosed one dollar for my subscription to the CANADIAN BEE JOURNAL. My bees have wintered well.

Yours truly,
THOMAS WAKEM,
Glen Oak, Ont.

Bees came out of cellar all right. No losses.

JOS. KINDER.
Rockingham, Ont., May 1, 1895.

DEAR MR. EDITOR,—In compliance with your request of some time ago, I now send you my report as to how my bees came through the winter: On the 8th of Nov., 1894, I put them into the cellar, which is under the dwelling house, Ninety four stocks. On the 17th of April I commenced to get them out on their summer stands, and found two dead and one queenless, with the balance, ninety-one, in splendid condition except 4 or 5 which are rather light, and the lightest of these 4 or 5 is the one containing the Golden Italian Queen sent to me by the Experimental Union. It does not contain a teacupful of bees. But it arrived too late in the season to make any progress in broodrearing. The Leather Colored Queen has a fair supply of bees and I have just given her one good case of honey, which will be sufficient with what they have to carry them through in safety. On April 20th I saw the bees carrying in pollen from willows. On November 9th, 1891, I put in 17 stocks in my Rockdale Apiary cellar, and on April 16th carried them out and found one dead with combs badly moulded; I have not yet examined the balance, but from indications I feel sure that the most of them are mouldy. The temperature in the cellar in which they were wintered stood at 40° throughout the winter with very little variation; while in my own, where I wintered my ninety-two successfully, the temperature remained at from 48 to 50 degrees from the time they were put in until they were set out. The winter down here has been one of unusual severity. A steady cold with plenty of snow and at this writing, April the 23rd, we can yet see here and there the remains of some heavy snow drifts.

So far as I have learned bees have wintered fairly well, although some report pretty heavy losses. One man says he put in 51 stocks and only took out 39 alive, another says he lost ten per cent, and Brother Hall, of Woods'ock, reports "a clean sheet, 92 put in and one less than 93 put out," well done friend Hall, so

much for cellar wintering. It is never the winter that troubles me, it is the spring, the first 6 weeks after the bees are set on their summer stands. The month of May here is usually rain and cold with high winds and some flurries of snow, and in this immediate vicinity there is little fruit bloom. And now, Mr. Editor, lest I have taken advantage of your good nature by spinning my yarn too long, I will draw it to a close by wishing yourself and your large family of readers a happy and prosperous season.

W. J. BROWN.
CHARD, April 23rd, 1895.

Please find enclosed the sum of one dollar to pay my subscription for the current year to the CANADIAN BEE JOURNAL. I am very well pleased with the Journal, it is still improving under your management. May success attend you. There has been two bad years in this part for bees. It is to be hoped the coming season will be better. I am dear sirs, yours truly,

THOMAS RAMAGE,
Richview P. O., Ont., March 25, 1895.

A May Madrigal.

Birds are busy on the bough,

Listen, how they sing!

All the world is merry now

In the arms of Spring.

Tinkling blossoms on the spray,

Frembling stars above,

How they gladden the young May

Whisper softly—Love!

Fickle April gone at last,

Doubt with her has flown;

May and Hope returned, and fast

Calling to their own.

In her garden bowers the rose

Slips a velvet glove,

Some one calls her, well she knows

'Tis the voice of Love!

On the vine the gentle gales

Kiss the buds awake;

Drowsy violets in the vales

All their dreams forsake.

Back on shining pinions fleet,

Flies her faithful dove

With May's message, strange and sweet.

With your me-ssage, Love!—

FRANK DEMPSTER SHERMAN in May Ladies Home Journal.

I see by my last No. of the C. B. J. "Pencil Mark" notifying me time is up. So you will find the dollar to renew for another year as I do not want to part with the C. B. J. With best wishes, etc., I am yours truly,

WM. PECK.

THE CANADIAN BEE JOURNAL is greatly improved. AUBREY McKAY.
Stellarton, May 6, 1895.



HON. W. H. MONTAGUE, SECRETARY OF STATE.

Haldimand Heard From.

At the Haldimand Beekeepers' Association held at Nelles Corners, Saturday, May 6th, 1895, it was resolved that the Haldimand Beekeepers' Association express hereby its strong approval of the "Pure Honey Bill" introduced into the House of

Commons by Dr. Sproule M. P., and that we would respectfully ask our representative in the House of Commons, the Hon. W. H. Montague, Secretary of State, to support us in this matter. That a copy of this resolution be sent to Dr. Sproule M. P., and the Hon. W. H. Montague M. P. Passed without a dissenting voice.

Section Holders or Rests.

—Dr. C. C. Miller.

Friend Holtermann.

I have hesitated just a little as to prolonging controversy, and yet as the matter may be important to others I think it may be well to further discuss the relative merits of surplus receptacles. There's a streak of such good-natured candor running all through your reply to me on page 483 as to make you a very pleasant foe with whom to contend. So now to the battle.

I asked you to name the advantages of the section holder over the T super. Looking carefully at your reply. I think you make these points in favor of the section holder: 1. Your honey is generally of very good finish. 2. The T super is not so easy to manipulate as the section holder. 3. Section holder more rapidly filled. 4. A single section can be more easily removed from the section holder, or at least I suppose that's what you mean when you say 'With the section supporter it can be removed more readily than with the frame.' 5. The large amount of section holders sold.

Have I fairly given all your points? I don't know that you meant to give number 5 as a point directly in favor of the section holder, but it is entirely legitimate to use it to show that other people want section holders. But I think it can be seen that a large number would be sold for another reason, aside from their actual value. The A. I. Root Co. say in their catalogue "We consider the section-holder arrangement superior to any other." And they are so thoroughly reliable in their statements that this statement will settle it for thousands of beginners that the section-holder is just the thing they should have. For remember that the sales of surplus receptacles are mainly to beginners. In this one instance I am strongly of the impression that the A. I. Root Co. are mistaken, no matter how honest may be their opinion. But it would be a good deal more to the point, instead of calling attention to the large number of section holders sold to those who have no acquaintance with either kind, if you would give a list of the names of those who had T supers extensively and then upon trial found the section holders better. How many such do you know of? On the other hand here is a further quotation from Root's catalogue which says, "There are those who have used the T super so long, and to the exclusion of all others, that they

are not easily persuaded to use anything else." Now either the T super has fallen into the hands of a lot of very stubborn people, or else that statement means that those who have fairly tried the T super have found it superior to anything else.

Turning to your first point, I think all the reply I need to make is that the same remark applies to my honey.

Points 2 and 3 may be considered together, for I suppose all the difference there can be in the manipulation of the two kinds must be in the filling and emptying. Really I would like to see your manipulation of the T super, for some of the things you say sound very much as if you had gone at the affair wrong end foremost. You say, "Those pieces and those separators when the sections are out of it fall into all shapes and have to be adjusted. They with my temperament drive me wild." I should think they would. For no one should think of having those pieces and those separators adjusted before any of the sections are put in.

Now I'm going to dictate to you how you shall fill a T super, but it's just possible that among your readers some beginner has got a lot of T supers that he has taken on a bad debt, and knows nothing about using them. Well, here's how to fill them. First put a row of sections across one end. No, you're not to put in a T tin first, nor anything else in the world before the first six sections. After they're in, then put in your first T tin. "Can't easily get the T tin under the sections?" So you can't. Well, then fix it so you can. Have a board a little larger than the super, and which to place the super. At one end have a cleat so that you can quickly push the super against it, and thus always have the super at the same place on the board. There is no trouble about putting in the sections, and there would be no trouble about slipping the tin under them if it didn't come close down to the bottom. We'll have them raised up a quarter of an inch. Take two sticks $1\frac{1}{2}$ inches long a $\frac{1}{2}$ inch square, and nail them on your board so as to support the sections, but out of the way of the T tin. Now when your first row of sections are in, you can easily push the T tin to its place with a single movement, slipping it under the sections. Two more sticks must be nailed on the board to support the second row of sections the same as the first, and the same with the third row, but there's no need of anything for the fourth row. After you put in your second row of sections, then the second tin, and the third row of sections. Then the third T tin and the fourth row of sections.

When you come to put this in actual practice, you'll find it's just as easy as setting the sections down on a table, in the first three rows, and easier too if you should attempt to put them in a straight row on the table. And putting in a T tin is very nearly as easy as putting in a section, and altogether a different thing from trying to set a T tin in its right place with no section in a super. Putting in the fourth row is not so easy as the first three rows, but I think it is as easy if not easier than putting them in a section holder.

I think you will now see that there would be nothing fair in making such a contest as you propose, letting you have part of your work done in advance, for my work could not be done in advance, neither would I care to make two jobs of it. And if I had time to do any of it three months in advance, I don't see any reason why I should not finish all as I go.

I think if you will once make a trial according to the directions I have given, you will not wonder that I make a slight change in your words and say, "I do not find it as easy to manipulate the section holders as the T super."

Point 4. As to this I can hardly say from experience, and although I can see no reason why it ought to be easier to draw a single section out of one than the other, I think it ought to be a little easier to put it back in the section holder.

Possibly you mean to make another point in favor of the section holder keeping sections clean. The top, the most important part, is the same in each, and if it's better to have the top bare, why not the bottom? If the separators extend clear from top to bottom of sections in the section holder, then there is a slight advantage in favor of section holder, for in the T super there is at top and bottom a crevice one-half inch long the thickness of separator.

You say there is no sag to the section holders. Have you examined very closely when filled with honey? We might expect some with four pounds weight on a quarter inch piece. The A B C says "For ordinary wide frames, sections are liable to drop down from the top-bar, leaving a little space." How can they drop down unless the bottom-bar sags? When we allowed $\frac{3}{4}$ space under the sections, a little sagging didn't matter, but with the present quarter inch space I'm afraid there would be in time enough sagging to make the bees glue together the bottom-bar of the section holder and the top-bar of the brood frame.

You make no reply, and I don't know that there is any to make, to the point that T tins are much easier to clean than section

holders, and if you have spent as many days cleaning section holders as I have in cleaning wide frames you will know that here is a strong point.

I have not mentioned one advantage that to some may be very important. It is that while section holders can only take sections of one particular width, you can put in T super sections of any width. That alone would condemn the section holder for my use. You are well aware that the matter of width of sections has never been a very stable affair, and it isn't at all certain that any bee-keeper living will continue to use all his life the same width he is now using. Some use sections $1\frac{1}{2}$ wide, some less, and as many of us have already made changes we may want to do so again and so we don't want to be tied down to any particular width.

Let me see if I can recapitulate the points upon which we agree and disagree. You think it is easier to fill section holders: I think it is easier to fill T supers. Possibly you might agree with me that it is easier to empty T supers. We do not agree as to the danger of sagging.

I think we agree upon the following points: The section holder has the advantage. 1. In that it does not have the half-inch crack the thickness of the separator at top and bottom. 2. A single section can more easily be returned when drawn from a full super.

I think we also agree upon the following points in favor of the T super: 1. It costs less. 2. T tins are easier cleaned than section holders. 3. While section holders admit sections of only one width, T supers admit any width.

Now when a beginner wants to make use of this discussion to help him decide, he can weigh the points on which we agree, and if he wants to decide for himself the points on which we disagree, he can try manipulation of each for himself. Marengo, Ills.

[It is a difficult matter to prove that you can get a better finished comb with the section holder, but I do not think it would be as difficult to prove that the sections (wood) would come off the hive in better shape and require less cleaning. I admit that the sale of many holders is not a complete argument but it has a value which makes it worth mentioning.

The Doctor calls on those who have used T supers and have changed to section holders and prefer the latter, to report. All right, let us have such reports; on the other hand I shall be pleased to have the reports of those who have used both and prefer the T rests.

The difference in our view of the super

is this, you look at it when filling, I when emptying, hence the difference. It may not be quite fair to have some of my work done in advance but there is this about it. I do not like to fill my sections with foundation very many months before they are to go on the hive. I can do certain work at a season when I might only be getting into mischief for lack of work. You have to do this work when you do not know how you are going to get through your work, see? Yes I decidedly mean you can have a cleaner section with the section holder. It is better in my estimation to have no top bar only to the extent that it aids in the quick removal of the section, the bottom bar does not hinder this but as soon as you add the top bar that addition hinders rapid manipulation. No, there need be no sag, if the sections fit evenly the weight comes on the section holder rests and is evenly distributed over the bottom bar. Again you must remember the side wedging, if properly filled and wedged, *there is no sagging*. I know we have taken 1,200 to 1,500 lbs. a year and I have done the most of cleaning. Now Doctor you need not try and score a point on T tins saying you can use different widths. No good bee-keeper wants to bother with different sizes of sections if he once had an experience of one size section and one size of frame in the apiary.

I am afraid Doctor Mr. Miller, (that is the correct and proper way of addressing you is it not?) you recapitulate rather in favor of *your side*.

I prefer the section holder : 1. It is more readily filled and emptied. 2. They keep the sections cleaner all but the top being protected, therefore the sections are easier cleaned, in your case the T tins are more easily cleaned. By the way, of which have we the most of and which do we find most difficult to clean. *Otherwise* I think you recapitulate very fairly. If I can get another article out of you with so many clear and valuable points I shall not object —Ed.]

In the May number of The Cosmopolitan we find an excellent illustrated article by Mr. W. Z. Hutchinson, editor of the Bee-keepers Review. Such articles do good in many ways. Those desiring the number can have it post paid 20c. by addressing Mr. Hutchinson, Flint, Mich., U. S.

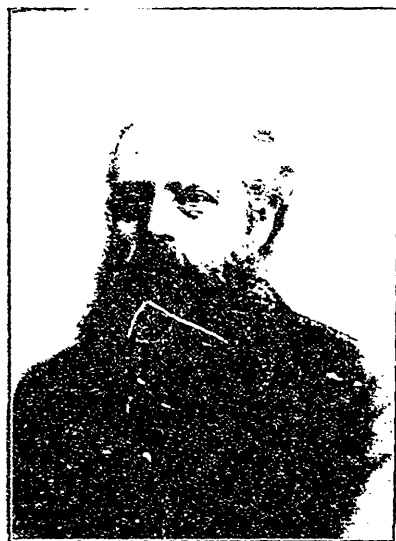
Alone.

Squanderer and friends flock 'round you.
They leave when your money's gone ;
Drink, and the world drink's with you,
See snakes, and you see 'em alone.

Mr. J. B. Hall, President Ontario Bee-Keepers' Association, Woodstock.

We are pleased to give our readers an excellent half tone engraving of Mr. J. B. Hall, Woodstock, Ont. Mr. Hall is well-known to bee-keepers not only in Canada but abroad. He is one of our best bee-keepers and is particularly skilful in the production of comb honey.

Mr. Hall was born on December 3rd, 1833, in Great Yarmouth, Norfolk, England; he has been an esteemed resident of Woodstock, Ont., for many years. He liked honey and this led to the keeping of bees. He never saw a bee before he came to Canada in 1856. He has an apiary



Mr J. B. Hall.

at his substantial and pleasant home at Woodstock and an out apiary in Zorra township. He has had as high as 500 colonies of bees at a time and taken 25,000 lbs. of honey in a year, 11,000 lbs of which was comb. Mr. Hall's practical success alone would warrant the Ontario Bee-Keepers' Association in electing him as president. It must be remembered that Mr. Hall began at a time when there was but little reliable information to be had about the successful management of bees. To-day it is comparatively easy to begin and succeed.

WINTERING BEES

By R. L. Taylor.

During last fall and winter I made such efforts as I could under existing circumstances to get some light on the problems growing out of the matter of wintering bees. My bee cellar is under my honey house and is fifteen by thirty feet, with a cistern in one end. I have wintered bees in this cellar for seven or eight years with almost uniformly excellent success and yet it now seems certain, from my experiments with a hygrometer, to be a very damp one, there being a difference, at a temperature of from 45 to 50 degrees, between the wet bulb and the dry bulb, of only one-half a degree, which indicates that the percentage of moisture is about 96—almost complete saturation.

It is claimed by many prominent beekeepers that moisture is one of the principal causes, if not the principal cause, of the winter disease of bees known as dysentery, but if this were true I should have expected to find it prevailing largely among my bees during the last winter, but such did not prove to be the case. In fact, though I suffered a larger percentage of loss than I ever did before in this cellar—about 20 per cent.—yet only a small proportion of those that perished showed even a little evidence of that disorder. I discovered only two cases that could be called really bad, in one of which the colony died and in the other the colony had regained its health and was in good order and good strength when removed from the cellar, and still remains so. This case was a peculiar one. The hive was an eight-frame L hive and the bottom board was left on in the wintering. Such a forbidding receptacle for bees as this was when taken from the cellar about the 10th of April I have seldom seen. The bottom board was covered with a mass of sticky odore to such an extent that only now and then would a bee venture upon it to gain the outside of the hive. The cover was well sealed on and when pried off it ran with the almost incredible amount of water, and the honey board and combs outside the cluster were wet and white with mould. When the bottom board was removed and a clean one substituted, the

bees came out to fly as clean, healthy and strong as one would care to see.

I cannot reconcile this case, as well as many others I have examined recently, with the theory that moisture is the cause of dysentery. Yet I think I have good evidence that moisture under certain circumstances is harmful. When the strength of the colony is sufficient to enable it to keep its immediate neighborhood dry, it appears not to suffer from moisture, but if it is so deficient in numbers and vigor, one or both, that it is unable to do that, it seems reasonable to suppose that it must perish, being either chilled to death in the cluster or else driven to desperation by the misery of the situation, scattering and leaving the hive tenantless. The slight spotting of the combs which often occurs under such circumstances should not, I think, be taken as a sign of the trouble known as dysentery. It is rather the result of the weakness of approaching dissolution than the cause of it.

Last season after the failure of clover and basswood there was very little nectar to be gathered in this locality either during the remainder of the summer or during the fall, from which fact it resulted that at the beginning of winter a large portion of the colonies were not only weak in bees but especially so in young bees. It was not difficult to foresee the probable consequence of this state of things, so I was not surprised at the loss I have incurred. Apparently the old bees died off during the early part of the winter, for more than the usual number left the hives during that time, thus reducing the cluster to a size too small to enable it to successfully combat the unfriendly influences of moisture combined with a cellar temperature. Perhaps in many cases a cellar temperature alone would prove sufficient to create such a feeling of discomfort as to make the bees restless and so cause them one by one to leave the cluster and wander out of the hive and be lost, but I have no doubt that in other cases the added influence of moisture was necessary to accomplish total ruin. That the decline of these colonies came about in the way I have indicated

seems substantiated by the fact that in almost all these cases very few dead bees were left in the hives and in only now and then one had the bees last to perish preserved the form of a cluster to the last.

Quite a strong effort was made to determine if possible whether sealed covers were, in cellar wintering, a disadvantage, and a large number of hives with such covers as well as those with loose covers were set apart and carefully examined with the result that where the colonies were of fairly normal strength there was no apparent difference—almost every one of that class wintering very satisfactorily. About the only advantage of loose covers was that the combs were preserved dry and clean. It was also observed that the entire removal of the bottom board, leaving the bottom of the hive entirely open, served largely the same purpose as a loose cover, though not to quite the same extent. In some of the larger hives having a bottom board as well as sealed covers, the combs outside the cluster were very wet and mouldy. In the case of the weaker colonies, sealed covers were comparatively detrimental. Of course all this is in a cellar where the temperature was maintained during the entire winter at 45 degrees and over, and it can readily be believed that the class of colonies that would fail to cope with the conditions induced by sealed covers out of doors would be very considerably enlarged; not, I think, because the moisture would induce the disease known as dysentery but because it would require stronger colonies to ward off the encroaching chilliness caused by constant excessive evaporation, so that the health and vigor of a larger number would be undermined and finally destroyed.

Of course so far it does not appear that sealed covers have any advantage in any case, but inasmuch as they cause wet and mouldy combs it would be well worth the while to loosen all covers when the bees are put into the cellar and certainly so unless the bottom boards are entirely removed.

The losses I have incurred speak plainly of the importance of giving strict heed to the old rule: Keep all colonies strong. By doubling up about one-third of my colonies in September I should have escaped with practically no loss.

With a hope of learning something bearing on the subject of out of door wintering I made the following experiment: In November, at the time I was putting the bees into the cellar for winter, I selected six colonies of good average strength, each in a single story Heddon hive. Then the hives were placed one above

the other with nothing between them except a single sheet of wire cloth so prepared that each colony was provided with its proper entrance. Of course the lower hive retained its bottom board and the upper one its cover, but the rest of the covers and bottom boards were entirely removed. The lower hive was raised about ten inches from the ground, then the whole was well packed below, and with about four inches of dry planer shavings on top and on all sides except about four inches in width of the front left for the entrance. The cover was left sufficiently loose to allow the escape of moisture into the packing, and the entrances were closed to within about an inch in width. During the winter these bees had comparatively frequent flights and seemed to be doing well. About the 20th of March some of the upper ones brought in considerable pollen, but the two lower ones exhibited but little signs of life. Then came a blizzard the last of March and first of April and when that had passed and other colonies began to bring in pollen these remained ominously silent; indeed the silence seemed chronic and an examination revealed that it really was so, they had all passed away. The combs were dry and clean and the stores abundant, but there were no live bees and very few dead ones. There was very little if any appearance that they had finally perished in a cluster. Unless the arrangement of the hives and the thoroughness of the packing had deluded the bees into thinking that it was so warm that they might with safety try the open air and thus untimely perished. I know not how to account for their utter destruction.

Brant Bee-Keepers' Convention.

A meeting of the Brant Beekeepers' Association took place here on Saturday, May 15th. There was a good attendance. Among other items of business, the proposed legislation at Ottawa was discussed. Members were all strongly in favor of the bill now before the House of Commons. It was moved by Mr. John Shaver, Cainsville, seconded by Mr. C. Edmiston, Brantford, and unanimously resolved that the Brant Beekeepers' Association hereby endorse the "Pure Honey Bill," brought before the Dominion House by Dr. Sproule, P., and that a copy of said resolution be forwarded to Dr. Sproule at Ottawa.

Read at the Annual Meeting of the Ontario Bee-Keepers' Association.

DIFFICULTIES EXPERIENCED IN MARKETING COMB HONEY.

On a former occasion I read you a paper on the production of the above article and followed with a few remarks as to the advisability of producing it in the most marketable and attractive shape possible. And as several seasons have passed since and having had some additional experience in both producing and marketing it, I have thought it in place to give you the benefit of my further knowledge in this direction.

First of all I might mention, that the harvesting of good marketable comb honey (and no other kind is worthy of the name) is a special branch of apiculture, and one requiring more close attention than the securing of a crop of the extracted article.

Those having their doubts in regard to this statement will soon find out the truth of this assertion, as I already know for a fact, that some, who in the past have accepted this hint with the proverbial "grain of salt," have already realized by the past season's experience, that "all is not gold that glitters." Especially those who may have prepared on an extensive scale for a trial of what appeared to them easily accomplished.

The individual apiarist's interests are what I have most at heart and I trust that nothing that I may state or write will cause any one to think otherwise, in fact so far from desiring to deter my brother bee-keepers from this particular line of apiculture, I rather incline to the opinion, or conviction that it would be a blessing, at least in some particular instances, if less extracted, and more comb honey were produced, as the former is now at rock bottom prices, with the appearance of it being soon produced at a loss to those engaged therein.

Be this as it may, I would at the same time caution all present from going from one extreme to the other as there is a happy medium between the two, which common sense, and the market must in your own particular case decide for yourself. My primary caution therefore, would be that none who cannot bestow some judgment, patience and the requisite amount of time and labor for raising comb honey, such as already described, would in most instances coming under my observation do better in the extracted honey line, especially if they can succeed at present prices.

As successful wintering, favorable springs and good flows of nectar, coupled

with having the requisite numbers of *gleaners* at the proper time, has much more to do with success in this case, than in securing honey in the liquid form, for it is beyond a doubt that every pursuit is fraught with ups and downs, good and bad seasons as with any other occupation which one may choose, either from the love of following it, or from the inevitable force of circumstances. Secondly; it is quite certain that with a sufficient quantity of the extracting combs, so that through tiering up may be prevented, in order that too frequent extracting is not done, before the honey is perfectly ripened, a first-class article of extracted honey can be produced in the hands of any one who has but a slight knowledge of apiculture, and said article will sell without detriment to the purchaser, consumer, producer or his brother bee-keeper. This, however, is not the case with respect to comb honey, as from samples, which it has been my privilege to see exhibited in the windows, and on the counters of some stores in cities and towns in Ontario, especially of late years and more particularly this fall, is anything but encouraging to the apiarist, yes even detrimental to the pursuit, and I may add nothing short of a disgrace to apiculture in its present stage of actual or supposed advancement.

It is an unpleasant fact to be compelled to face, but none the less true, that there are those to-day who have in the past sold large quantities of comb honey, who positively refuse now to handle it, others again say the comb honey business appears to be going to the dogs, if indeed it has not already gone there. This latter statement in one instance came from one who had a supply exhibited in his window, and the thought at once arose in my mind that if he was taking the most effectual and expeditious means of succeeding in his purpose, as it presented the appearance of having been worried by a half dozen canines, which had finally given up the contract in disgust, reminding one to some extent of the ruins of an ancient city that through apathy or want of enthusiasm on the part of its former occupants had nothing but its walls standing to remind us of what the interior once contained. But jesting aside, no doubt some will say "a good article will always command a good price" and while this is true to a certain extent, my experience of late, as well as what I have learned from others, does not always prove it so. It is not so easy running up hill as it is to run down, therefore it behoves us all to make a united effort to in future produce a better and a larger quantity of our product, put up in such an attractive and

enticing manner as to compete favorably with the many other articles of consumption which meet us on every hand, which as a rule are displayed in the most pleasing shape possible, so that they meet not only the eye but at the same time tickle the palate of the ordinary mortal, as well as the capricious epicure. Finally, let me urge the necessity of removing as far as possible all traces of propolis from the sections, and then putting them in new crates never sending comb honey to market in the same super or case in which it is produced. These crates should be made of light material and glassed at one side. Before crating the sections, however, first place a sheet of manilla paper in the bottom placing thereon some thin strips of wood, so that should any section become damaged and leak, it will not soil the others. A good plan also is to put your name on all sections with a small rubber stamp which can be had for a trifle, and if you are sure the crate will not again be used to show inferior honey purchased from others, by all means, put your name on it also. The latter caution I give, often having seen some of my own crates (with my own name on of course) containing honey such as I would not even give away much less sell to any one.

F. A. GEMMELL.

Spring Protection.

- Levi Moses.

I am on the spring protection side of the fence and I want to shout over to you fellows on the other side and say this is a pretty cold morning for brood-raising with ice on every dish that has water in it and a little snow falling. I have been putting on an extra brood nest as fast as they seem to need them and some have four frames of brood in the top story, but they are well packed in straw and seem comfortable this morning. I use the eight frame Langstroth.

Clarendon Station, Ont., May 13th, 1895.

[We believe that those with spring protection are best off just now, but we must be careful and not come to a speedy decision. Spring protection may not be best for an average season. We have not yet time to see what damage has been done to our bees, but it is not unlikely there will be chilled brood.—Ed.]

Rearing Choice Queens.

AN EASY AND SIMPLE WAY ; WHEN AND HOW
TO DO IT BY THE USE OF QUEEN-CELL
PROTECTORS.

When the swarming season arrives, give a few of the first swarms, and put them on their original stands. Give them sections, and from these young swarms, which will contain all the field-workers, get all the honey possible. But the hives that have cast these swarms, which will contain only the young bees, the brood, and all the queen-cells, move to new stands; let them remain without further attention for five, six, or seven days (not long enough for one queen-cell to hatch, lest all the other cells be destroyed), and then open each hive; sort out and carefully trim, and put in cell protectors all its queen-cells. Attach the cages (see cut), and hang them all back in the hive on the side of one of the center combs. I generally leave out one of the combs, unless a follower is used, when I thus put the cages in a hive; but as the cages are in the space between the combs, it is not strictly necessary. After all this has been done, close up the hive and wait until the time for all the cells to be hatched and then open the hive again; and, if you find six or eight fine young queens in the cages break up the colony and make as many nuclei from it as you have young queens. Put one of the young queens into each nucleus, and leave her there until she lays; then do with her what you please. The way to make the nuclei is to put one comb of these young adhering bees and an empty comb at the side of it in an empty hive, and leave the entrance to the nucleus hive closed 24 hours; then open the same, and, as all the inclosed bees are young, they will stay, and all will be well. There is considerable gained in using young bees to raise queens, as the young bees will stay in a nucleus better than old bees, and you can raise so many young queens, and get them laying before the young bees become field-workers.

Queen-cells for a queen-nursery should be taken from the best strains of bees, and if you desire increase by natural swarming, destroy the cells in inferior blooded colonies that have cast swarms, and give them a select young queen from one of the before-mentioned nuclei. You can introduce the queen from the nucleus with the nucleus bees if you wish to, by taking out a frame from the hive in which you wish to introduce the queen and taking the frame, containing the queen and bees, from the nucleus hive, and putting it

in the place of the removed frame in the queenless colony.

To introduce in this way, care must be used not to frighten or get the queen to running; then the queen will generally be received.

I hatch a great many queens in the aforesaid way, with great satisfaction, and always keep through the swarming season a goodly number of choice young queens in nurseries and nuclei in each of my six beeyards.

By removing the queen from *any* colony you can hang in as many caged cells as you please, and the bees will care for the queens when they hatch; and you may keep the same colony raising young queens, using the queens wherever you need them. You can also hatch young queens in a colony that has a queen of its own; but the bees will not nurse the new mothers after they hatch; but, on the contrary, if they could they would kill them; and queens allowed to remain in such a colony a day or two after hatching are not as good as queens allowed to remain after hatching in a queenless colony.

Before I forget it I will tell you that, when I introduce queens in the spiral wire cage, I crowd two or three penny-shaped peppermint candies (I buy them for this use) in between the coils on the upper end of the cage for a stopper, and the bees will eat out these candies and liberate the queen.

Much more might be said about introducing queens, but I will leave that now and tell you something about introducing queen-cells.

If an increase in colonies is not desired, in the swarming season, when good queen-cells are plentiful, cut out such cells as you want to save, and put them in queen-cell protectors (great care must be taken in handling cells or they will not hatch). Now, suppose you have eight cells, I trim and put in the protectors, then go to eight colonies that have the poorest queens; kill the queens and destroy their cells, if there should be any, and at once place in each colony one of the protector-inclosed cells. The queen in the cell, if it is a good cell, will hatch out in due time, and soon go to laying, and, as a rule, this colony will not swarm; and if there is honey in the field they will gather a large surplus, and they will be in good shape for winter. In my out-yards, to make doubly sure of a cell's hatching in each hive, I sometimes put into a hive two protector-inclosed cells; but to one of them I attach a cage; then if both cells hatch I can use the caged queen elsewhere: if only the cell in the cage hatches, liberate the queen from the cage, and she is at home. In this way one can always have

a surplus of queens on hand to use whenever needed; and if care is used in selecting cells from the best-bred bees, you can breed all your bees up to a high standard, and keep them there; and you can control your swarms to such an extent that you can fix your increase to suit yourself.

N. D. WEST.

Middleburgh, N. Y.

[Mr. West who keeps about four hundred colonies of bees, has kindly consented to contribute an occasional article to the CANADIAN BEE JOURNAL. The above has been sent by him. It is practical and seasonable.—Ed.]

Bees-Keeping in Manitoba.

Having been fairly successful with bees in Manitoba this last three years I give you a little of my experience.

I started the season of 1894 with fourteen colonies increasing them to twenty-three and also got eleven hundred pounds of honey, which I sold at a good price.

I have been more successful in wintering them here than I used to be in Ontario. I also notice the season that they gather honey is much longer and more steady. I put my bees out of the cellar on the 13th of April, and they started gathering pollen the same day. We have lots of white clover here also basswood, but I have not noticed much surplus from the basswood yet. They gather quite a lot from golden rod in this part, also off the wild prairie flowers.

I had a couple of good *swarms* which went to the bush last season. I intend having a search for them soon. I want to know if they will live in the bush here or not over winter.

Portage la Prairie, Man.

[We are very much pleased to have this report which is full of useful information and to the point. We should like to have more reports be they good or bad. We are under the impression that Manitoba, the North West Territories and British Columbia, can well embrace bee-keeping as a branch of agriculture. Mixed farming to a greater extent is what many of these districts require.—Ed.]

Correspondence.

DONCASTER, NOV. 28th, 1894.

To The Canadian Bee Journal.—

Please find enclosed one collar for C. B. J. which I could not dispense with. We have our bees packed with leaves in boxes, two hives in each box, with movable front and back which will answer as summer

stands. I made a super last winter which gave better satisfaction than any I had yet, with perforated separators. It gives the bees free access to all parts, and a three-eighth bee space between frames and super and one half inch on top of sections, but I think a three-eighth space better also on tops. But few burr combs will be built with a three-eighth space between super and frames. I hope to be at the Bee-Keepers' Convention in Stratford in January.

THOMAS HARRIGAN.

GALT, May 20th, 1995.

Dear Sir:

How is the weather in Brantford? Anything like it is here, freezing to beat six of a kind nearly every night for this last week? We had some lovely weather before this cold snap and I never saw bees work so hard for the time of year. I brought two hives of bees from St Thomas with me last spring, and increased them to four I packed that four in a box out doors and I think one of the most exposed places to the north-west winds that there is in the town of Galt. When I was in California and reading about such a cold winter in Ontario, I pitied those four hives of bees, but to my surprise all four wintered exceptionally well. I put a super of thirty-two sections on each hive in April, they started at once to draw out the foundation, at present they have the thirty-two sections nearly full of new honey, at least I looked in the other day and they had quite a lot of it capped, this has all been done without an ounce of feed since last September, at that time I fed them to weigh 55 lbs, hive and all. I would like to hear the report of Mr. McEvoy's gatling gun.

Yours truly,
JACOB ALPAUGH.

Box 324.

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R. F. HOLTERMANN, - - EDITOR

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To the Bee-Keepers of Canada.

The Ontario Bee-Keepers' Association desire to have as large a membership as possible of those interested in apiculture, and as the bonus to members is worth more than their annual membership fee it seems but reasonable that all interested should become members, as the object of the Association is to benefit the industry and those engaged in it as well as being a benefit to the country at large.

THE CANADIAN BEE JOURNAL. of which the annual subscription fee is \$1.00, will be given to members of 1895. The report of the annual meeting is also given, which is a full report of all interesting discussions as well as giving financial statements, etc.

There is no doubt but what the Association is doing a good work in many ways, such as having a Foul Brood Inspector going through the apiaries in the Province, curing and clearing the country of that dreaded disease where found. and in getting laws passed by the government to protect the industry, even as to prevent the spraying of fruit trees with poisons which has been very injurious and caused great loss to those having bees poisoned where spraying was done at the wrong time.

The Association can fairly claim the support of all interested in bee culture and we trust that all seeing this request will respond by remitting the annual membership fee of one dollar, (\$1.00) by registered letter or Post Office Order.

W. COUSE, Secretary,

STREETSVILLE.