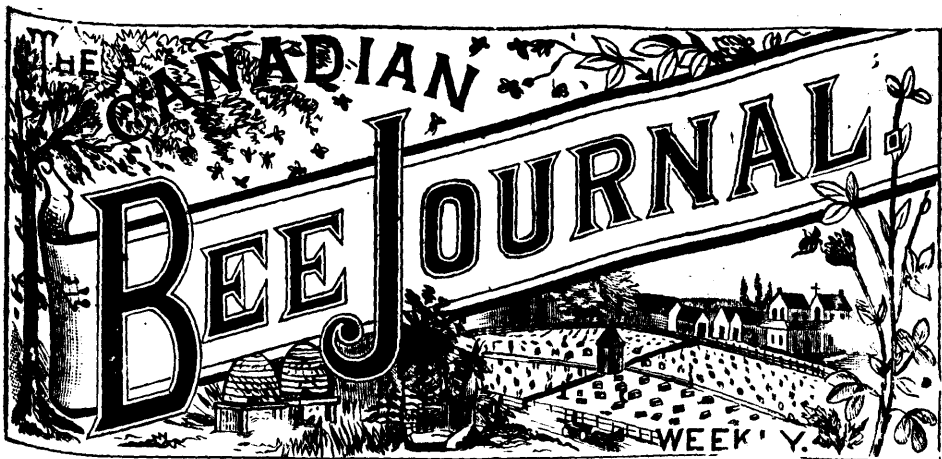


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Vol. I.

BEETON, ONTARIO, AUGUST 19 1885.

Nc. 21

THE CANADIAN BEE JOURNAL.

PUBLISHED BY

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TABLE OF CONTENTS.

	PAGE
Advertisements.....	334
A Mistake.....	333
Basswood, Planting.....	331
Basswood in Bloom Yet.....	31
Bees on Cotton Bloom.....	332
Bees, Who Should Keep.....	325
Bee Diarrhoea, Its Causes and Prevention.....	326
Hives and Covers.....	330
Honey, The Season Thus Far.....	324
Fertile Workers Leaving the Hive.....	331
Moving, Preparing Bees For.....	323
Our Own Apiary.....	323
Queens, Introducing.....	324
Queries and Replies.....	330
Partnership, Bees In.....	331
Raspberry Juice.....	323
Swarm Catcher, A Good.....	323
Sundry Selections.....	330
Windbreak, Planting Hedges For.....	330
What Shall the Harvest Be.....	229

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The Largest Manufactory of Bee Hives, Sections etc., in the World.

OUR CAPACITY NOW IS A CARLOAD OF GOODS DAILY.

NOTICE.—By enlarging our factory last year we were put behind with our work so that by spring we were obliged to return many orders. Now we have ample stock ahead, and can fill orders promptly. Write for our new price lists for 1885.

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The Best, the Handiest, and Cheapest.

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The Canadian Bee Journal.

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OUR OWN APIARY.

PREPARING BEES FOR MOVING.

OUR boys are busy preparing our bees for a move of about thirty or forty miles to a new location where there are large quantities of boneset, golden rod, asters, willow herb, snapdragon and other Fall flowers. We intend giving this matter a pretty good testing this year. The colonies will be taken from the various bee-yards and will be fair average colonies. We shall mark the hives from each yard and will then be able to tell the difference in the amount of honey gathered in the home apiaries and the new location. There is no doubt in our mind, if the Fall is favorable, that it will be a great success but it depends entirely on the weather. We think there is no question about there being sufficient bloom judging from present appearances. We place the combs about two inches apart from centre to centre—the major part have large quantities of brood. There is a nail driven through each end of the frame into the body of the hive holding them in position during transit. A wire screen is placed over the top of the hive or rather a rim that fits on top of the hive about six inches high with wire cloth tacked over the top. This enables the bees to pass over the top of the combs into this air chamber and prevents their smothering which would be inevitable were the screen down on top of the frames. These are transported in spring wagons to their destination.

Bees are now killing off the drones in many of the hives and those who have not taken the precaution to have drone colonies for late queen rearing will soon be left without drones. We place drone comb in the hive we wish to breed

drones from, and when they are filled with eggs or larvæ, remove them to these queenless drone colonies, and by keeping these colonies queenless after the honey harvest fails they do not kill off the drones. By this means we always have the very finest drone colonies until the end of the season.

A GOOD SWARM CATCHER.

Our friend, Mr. Maynard, of Thompsonville, has just called on us and tells us that this year he had two queens in a hive for ten days. We asked him if he did not think they were unfertile. He thought so. He also told us how he had arranged a very successful swarm catcher by putting two posts in the ground about eight or ten feet apart and fastening a scantling or pole on the top, in the centre of which he placed a plank about three feet long, crosswise, the centre of the plank resting on the pole and each end projecting about eighteen inches. In each end of this plank are a number of auger holes into which little bushes are stuck. A nail through the plank kept it in position, but we would suggest that a loose wooden pin would be preferable as it could then be moved if desired. His first swarm alighted on the under side of the plank not in the bushes, every succeeding swarm alighting in the same place. There were no trees in the immediate vicinity.

RASPBERRY JUICE.

Our bees are now coming into the hives with that portion of their abdomen around the honey-sack almost blood-red. Some of the students wondered what the matter was, and this was explained by the fact that they were carrying in the juice from the wild red raspberry. Our bees get considerable juice from this source in some seasons. It can scarcely be called raspberry honey, because when ripened down thick in the hive it is yet simply the thickened juice from the raspberry. We would not care to

winter bees on that kind of stores alone. We fear it would prove to be too near a relative to the "cider-mill" difficulty that some of our friends have experienced. As you look at it in the combs, it looks as red as a cherry, and has much the same flavor as raspberry wine.

FOR THE CANADIAN BEE JOURNAL.

THE HONEY SEASON THUS FAR.

INTRODUCING QUEENS, ETC.

AT this date, August 10th, it looks as though this season's honey production in Canada will be below the average. The clover certainly is. Buckwheat is mostly to come yet and there may be a good showing from that source at the end of the season; but the staple flora yielding the lighter grades are about gone for this year. As, however, the season is from two to three weeks behind time—hay, crops, honey bloom and everything being that much behind—the Fall yield of honey may probably be abundant and prolonged. So mote it be!

INTRODUCING QUEENS.

This is a hackneyed topic among bee-keepers and every season regularly brings the usual redundancy of journal literature on the subject. But this is all proper enough. In the queen centres the greatest interest of the apiarist, because she is undoubtedly the most essential factor in bee culture. The sight of a handsome queen thrills the bee-keeper with about as much pleasure and emotion as the sight of a handsome woman thrills the properly constituted specimen of the *genus homo*. And this is right in both cases. Little wonder is it then, altogether apart from his profit and loss account, that every good beekeeper loves his queens and is so anxious for a sure and certain method of introducing them safely to their new duties, domiciles and denizens thereof! For although he is pleased to upon the living queen whether, virgin or matron, he is equally pained to look upon her dead. We all remember our feelings on finding her dead body in the morning just in front of the alighting board. After the sorrow and pain have a little subsided the next impulse naturally is a bitter resentment against her murderers; but as this does no good and is withal absurd, we have only to recover our philosophy and try to do better next time—blaming ourselves instead of our wards. Of the various methods of introducing queens, the bee-keeper who has many colonies to attend to, and whose time is, therefore precious, must pursue the one that is expeditious as well as safe. He cannot afford to spend as much time in introducing a queen as would

suffice to hive two or three swarms of bees or extract a hundred pounds of honey. Of late years I have been in the habit of taking the following "short and easy" method of introducing my queens: I go with the queen in a little wire cage to the hive which is to receive her, and after lifting the quilt and puffing in a little smoke I thread a little honey all over the bees and tops of the frames out of a little longitudinal cage down lengthwise on top and between two frames and thread some honey over it too. By this time bees, queen and all are busy sipping up the honey. I then gently place one finger on the cage and with the other hand deftly pull out the paper or cloth cork of the cage, all hands being meanwhile intent on the sipping. I then stand and watch a minute or two, again threading more honey over cage and frames and as the queen quietly crawls out of the cage I see that a thread stream of honey from the tin in my hand descends upon her as she slowly crawls down between the frames. I then quietly lift the cage and very gently turn down the quilt leaving the bees busy with the tribute of honey. This all occupies from three to five minutes and the work is done. I must, however, admonish the inexperienced to go slow in adopting any such short and easy method with valuable queens. Do as directed all but releasing the queen. That can be done in a day or two—going through the same process. For myself I only venture to thus summarily release about one half of those I introduce. The experienced hand can almost invariably tell whether it would be safe to release at once or not. He knows his colony, its condition, temper, the weather, time of day, etc. and acts accordingly. No bee-keeper, to succeed, need expect to merely read the journals, put on a "straight jacket," and go by "rule." "It won't do." The authorities can only be aids to his own judgment.

ALLEN PRINGLE.

Selby, Aug. 10th.

You are quite right Friend Pringle about the value you set on honey "threading," as you term it, over the bees. Those who may not have a proper vessel may use a pitcher or coffee pot. We recollect one instance where they had tried for nearly a week to get the bees to accept a queen and they would "ball" her every time unless released at once; at every attempt they appeared to get worse and a number of efforts were made without success, but

when all other plans had failed yours proved successful. We have frequently tried your plan which, other conditions being right, never failed, but when honey is scarce we find considerable care is necessary to prevent robbing unless sugar syrup is used.

FOR THE CANADIAN BEE JOURNAL

WHO SHOULD KEEP BEES?

THIS is a question concerning which there is considerable difference of opinion. Many seem to think that none but those who have a special aptitude for it should assume the role of bee-keeper. But how, I ask, is this aptitude obtained? Is it something that is natural or acquired? I think it is a little of both. A person to succeed in bee-keeping must have a taste for it, and having this, experience will give him skill and facility in the management of bees. To excel, however, something more than this is necessary. He must to some extent be an enthusiast in the business, giving it a prominent place in his thoughts and conversation. Such will not be satisfied with the facts stated by others as the result of their experience; he will be continually making experiments for himself and only when his own experience agrees with the conclusions arrived at by others, will he adopt them and put them into practice. But whilst all may not possess the enthusiasm necessary to excel in bee-keeping, all may attain to a very fair measure of success, that are willing to give the question study and attention. Some go into the business without the slightest knowledge of how to run it and so failure is certain to ensue. It is with this as with every other industry, that a certain amount of knowledge is indispensably necessary. We must know what to do and when to do it, if we are going to succeed. But along with these, promptness in doing everything at the right time is absolutely necessary. Procrastination has been the ruin of many a bee-keeper, and closely connected with this and often giving cause to it is idleness which cannot exist in a well conducted apiary. No idler need apply for distinction in this business. The drones must be confined to the hives and not be found among owners. Any one who goes into bee-keeping to make an easy living will be disappointed. There is a great deal of good solid work about it. Still it is not so heavy but any one of moderate strength can perform it. This is evident from the fact that many of our most successful bee-keepers are ladies. What some of them have accomplished shows what

may be done by others. Many of them that are wearing their fingers out in sewing for a living could do very much better by turning their attention to bee-keeping. School teachers may also add a little to their too small incomes by keeping a few bees. They have the evenings to devote to them and the time that requires special attention when swarming and honey gathering takes place is just when their holidays occur. Clergymen is another class that may keep bees with pleasure and profit. They require some recreation and exercise, and this at certain seasons furnishes all that is desired. It also furnishes a most delightful study and the more they know of this one of the first little architects, the more will their minds be filled with wonder, admiration and praise at the wisdom, greatness and goodness of the Creator of all, and to join with the Psalmist in exclaiming "Great and marvellous are thy works Lord, God Almighty, in wisdom hast thou made them all." There are few things in which ministers of the Gospel can engage in, in order to augment their stipends that are not more or less objectionable. This, however, furnishes something which no reasonable person can take exception to. Unless that he goes into it too extensively it need not in the least interfere with the higher duties of his calling, for the time that the bees require attention is a season of the year when little pastoral visiting is done as many in the towns and cities are away on their holidays and the male portion of the farming community are all in the fields. Without any interference with his special work he may materially augment his salary and obtain the means for the education of his family which would not otherwise be available. Farmers might easily keep a few stocks sufficient to supply their table with the luscious sweet all the year round. Where there are several sons in a family one might devote his attention to the bees and add very materially to the common fund. Mechanics who have only a small piece of ground might easily devote a small corner to the blessed bees and realize more from them than from the entire garden planted with fruit or vegetables. In some of the cities where ground is scarce and not possessed by a large number of the inhabitants, bees are kept with profit on the roofs of the houses, showing that there is almost no position we can occupy but we may to some extent carry on this favored pursuit. It follows therefore that nearly every one may keep bees. There may be some who constitutionally are unfitted for it, the virus from the sting so affecting them as to endanger life, but these instances are rare, and as the system becomes inoculated these alarming symptoms

would gradually disappear. "But the bees would be sure to sting me," some one objects. What though they do, you will survive it. If you have not got courage enough to face the fire unprotected put on a veil and gloves and then you can feel perfectly secure. Whatever our political complexion may be, all bee-keepers agree that protection is a good thing some times. I am a firm believer in it. I have never attained to that state of perfection which the bees will not touch me. I once had a visit from one of this class, and so to test him I took him out to the yard and opened a cross hybrid colony and asked him to find the queen. They soon began to manifest an action in their after parts that was not at all pleasant, so, hastily replacing the comb, he made a bee-line for the house. I asked him what was the matter, the bees did not sting him. Oh yes, he said, but he had never handled them in that way before.

J. CARSWELL.

Bond Head, Aug. 5th.

Well done Friend Carswell. We knew that once you got into harness you would give us good sound facts. Such plain practical truths are contained in the above cannot fail to be of help to our bee-keeping friends. It will well repay a second reading. Since you have shown us what you can do we shall not be satisfied unless we hear from you regularly in future. If more ministers will take up the work with the same determination as Friend Carswell what an amount of good could be accomplished in every locality.

FOR THE CANADIAN BEE JOURNAL.

BEE DIARRHOEA.

ITS CAUSE AND THE MEASURES FOR ITS PREVENTION.

AS a disorder among bees, diarrhoea has several causes, which, operating in unison produce the effect, diarrhoea. In some cases one cause predominates, and in others another. Usually cold is the primary cause, and the other causes are developed consecutively. It does not appear that any one of the causes may, by itself, produce the affection. For instance, their honey and confinement in a moderately cool atmosphere may develop the mischief very early in Winter. Again, the stores being good, the hive small, thin-walled and insufficiently ventilated, the approach of con-

tinued cold develops the phenomena in order as follows:—Dampness in the hive, condensation of vapor, followed by unabated chilliness of the bees, excessive consumption of the food, and the ultimate causation of diarrhoea from slowing up the respirations and checking the pulmonary exhalation of water,

Cold as a radical cause, however, often produces as great havoc as bee diarrhoea. It has been held that the latter has been the source of more loss than all other causes of loss put together. This is a mistake, at least it is in some Winters. If the cases of spring dwindling be added to those dying of diarrhoea, they will still not equal the number lost the past Winter from the direct effects of cold. We will simply observe here that the result was forced starvation, the bees being unable to reach ample stores near by. In a very large number of cases the bees starved while protecting with a true mother's instinct, their brood. They chose to die rather than abandon it. If on the middle of last March the bees could have had one or two warm days so that they could have brought honey into the cluster, we would not have had so great and unprecedented a mortality to record. Seeing that great loss would occur from the continued severity of the cold, (the ground was frozen nearly four feet deep) last March, we took occasion to note carefully the condition of over 100 colonies that died here at that time and subsequently from spring dwindling. We found insufficient protection and badly managed ventilation in all cases. We noted especially that the bees were not confined to their hives over four weeks at a time. Up to January 10th they had flights every few days, then again on February 3rd and 28th they had free flights, especially at the latter date when all the bees were out, and very few colonies had died. Then again on March 26th all flew that were alive, but there were then hundreds of colonies in this county wrapt in the mysteries of death, and great numbers followed after from spring dwindling that did not cease till late in May. Of course there were plenty of cases of bee-diarrhoea but I wish here to remark that it is unlikely that since the bees had good flights as often as every four weeks that the bee-bread they consumed should have been the cause of their death. Those who hold to the pollen theory have told us all along that where there were frequent flights there could be no diarrhoea. Surely no accumulations of bee-bread could take place inside of four weeks to irritate the intestines! We take the pollen theorists to task right here for producing a highly unreasonable hypothesis. We examined minutely the discharges of the

bees on every occasion of their flight. They came out of many of the hives greatly distended but the discharges were nearly all water while the quantity of pollen was insignificant. We came to the conclusion at once that the man who would assign the cause to the eating of bee-bread must be highly visionary. If the consuming of much bee-bread is a cause of bee-diarrhœa then it would be reasonable to suppose that whenever considerable accumulations of pollen husks and "nitrogenous matter" had taken place, diarrhœa would invariably follow as the effect of "the cause." But I have just shown that we had the most inveterate cases here the past Winter and yet there was not enough pollen grains in the discharges to make the matter of note. Now, I can bring abundant proof that bees have been constipated with pollen husks &c., and so burdened as to be unable to fly before evacuating, and still there was not a sign of diarrhœa. How is this? Will these theorists say to us that there are exceptions, that bees may be sometimes overloaded with fecal matter without there being diarrhœa? If so, the sooner the pollen theory is patched up so as to point out the cause of the exception the better it will be for the theory.

Let me say here that bee-diarrhœa and bee constipation are as unlike as two distinct conditions can be. That the two have no relation to each other whatever by way of cause and effect I am well convinced. From what has been said by certain writers one would think that the diarrhœa of bees was little else than a discharge of bee bread. But it is not so in many cases at least. In all the cases I have ever seen of true bee diarrhœa the large proportion of water was the most marked feature. Often in a few days after a good flight and exposure to severe cold solitary bees would run out of the hive and discharge nothing but a dirty yellow colored water. I have often witnessed simple constipation and copious semi-solid evacuations after a long period of confinement, but in these cases there was not the remarkable loss of vitality nor the spring dwindling that is sure to follow (if the colony lives till Spring) as in the cases where the bees become bloated up with water, which fact I now look upon, occurring late in Winter, as the tell-tale evidence of a fearful struggle with cold.

Bees affected with diarrhœa soon become weak and sluggish, they come out of the hives slowly, often trembling, and many are unable to fly. Impaired vitality is one of the most striking features of the disorder. With every cold snap many fall dead from the combs. If the colony survives till Spring a single cold night will cause

many to fall, but a week of moderate cold and confinement will cause handfuls to fall down. Often their wings and legs drop off in falling or soon afterwards, so that they appear to be almost decayed before they die. If the colony lives on into May they are soon unable to care for their brood, they continue to fall dead on the bottom board or fly out to return no more. About this time or shortly before, the queen dies when none are left but a few handfuls of young bees that appear every day on the alighting board *en masse* to enjoy the gorgeous sunshine. This is spring dwindling.

The cause of bee diarrhœa rests on far different grounds than those set forth by the pollen theorists. In fact we do not now regard pollen or bee-bread to be even a factor in the causation, unless it shall be established that its consumption by the bees affords a special nidus for the development of putrifactive germs. We can understand how the germs may be developed, how that the bees having suffered a great loss of vitality from long struggling with cold, extensive germ development becomes possible. In this case cold is still the primary cause. Germ development in man or animal is invariably restrained by a vigorous vital organism. If bees can be protected so as to sustain their vitality there need be no fears from germs. But even here the successful prevention of diarrhœa must turn on other measures than the taking of their natural stores and substituting sugar syrup. So long as there are instances of the most perfect and satisfactory wintering on the natural stores in the very midst of those localities where many have fed sugar syrup and lost all or a part, we may feel sure that when we understand the matter fully, we shall be glad if we can always have sufficient of the natural stores to Winter upon. Again, the results of the past Winter have set at rest finally that specious and alluring argument that the pollen of one locality is any more hurtful, either from quantity or quality, than that of any other.

We account for the watery accumulations on the humidity theory, and as many may not fully understand it we will present it here. (If we fail to present it in its true light, Mr. S. Corneil, who is the author of the theory, will please to correct us.) The animal heat of bees is developed almost wholly in the process of the oxygenation of the hydrocarbons (honey and sugar) in the blood. It is increased by exercise as in other animals. In winter confinement bees raise the temperature of the cluster, when necessary, by accelerating their respirations and in some instances it seems probable that they flit their wings and restlessly move over and

about each other. Now, the natural respirations of the honey bee when at rest on a warm day are about 200 per minute. On the approach of cold they begin to respire more slowly and necessarily develop less heat. Those on the outside of the cluster do not breathe over forty times a minute and many of them not over twenty. Inside the cluster I have not been able of course to count the respirations but they are certainly slower than in summer time. (Here I must digress a little.) To this extent and to the extent held by the Rev. Wm. F. Clarke, bees hibernate and the slow respirations and lessened development of heat are the evidences of it that are indisputable. Say what we may, bees do hibernate under favorable conditions. The following incident will illustrate a case of hibernation. On the 26th of last March about noon all of my colonies were flying but four nuclei (that had gone to rest) and one fine Syrio-Albino colony in a double-walled hive. With a steel hook I raked the debris from the bottom board and felt satisfied that they were alive. As none came out I hooked on to the frames and shook them, but no stir, I then pounded upon the hive but all was still. Some friends standing near finally remarked, "Doctor, its no use, that colony is gone up." But I kept pounding away and it was fully ten minutes before a bee appeared. They proved to be a very large and well wintered colony. They had not a particle of upward ventilation but a very large entrance into which the cold winds had blown so hard at times that I had felt very anxious about them.

The accumulations of water in the intestines of bees take place when they are required to consume a large amount of food in order to sustain a life heat. When it becomes very cold they are unable to maintain—in the presence of counteracting agencies—the forced, prolonged and high rate of the respirations necessary to expel or rather exhale the larger amount of water evolved in the oxygenation of so much food. Under the severe physical strain their vitality is early impaired when they become less and less able to keep up a proper temperature of the cluster. They respire slower and slower and there is less and less exhalation of water. Meantime they are eating largely, they have no kidneys and accumulations of water must take place in the intestines. If about this time we see a bee come out of the hive to die, we perceive that it breathes only three or four times a minute, drags itself along and tells only too plainly the story of exhausted vitality. A very damp atmosphere and thin honey are causes that favor the accumulations: the first by the prevention of free evaporation of water from the

surfaces of the air tubules, and the second from the taking of water in the food which must be carried off in the respirations at a time and under conditions when such exhalations are greatly impeded.

If we place an affected colony in warm quarters, so that it can dry out, it is immediately benefitted and without a flight the bloated state of the bees is greatly relieved. On the contrary, if the bee-bread were the cause there could arise no benefit whatever from the application of heat since "the cause" could not be removed without a flight. On no other hypothesis than the above can we satisfactorily account for the phenomena.

If the normal temperature of the cluster can be readily maintained above that of the surrounding medium, free evaporation and the expulsion of the vapor from the immediate vicinity of the bees is accomplished and they will be kept dry and healthy so long as a favorable temperature can be easily maintained. Now the bees are so ventilated that they will not get overheated they will hibernate. The principle involved here is the same as in drying out a damp and cool room. We place a fire in it, warm it up and the dampness is expelled. In the same manner, if we so prepare the bees for Winter that they can maintain a heat of fifty degrees just over the cluster, the bees and combs and hives will keep dry and no diarrhoea will result. Take a colony on the summer stand with the brood chamber tight on top as propolis can make it and with the cap filled with chaff, thrust the hand down on to the frames over the cluster; if it feels sensibly warm the temperature is fifty degrees and the colony is wintering all right. But if cold, and it remains so long, there is danger.

We consider heat to be the only true remedy for bee diarrhoea as it is the only reliable preventive. In my first article on wintering, see page 7, vol. 18, of the *American Bee Journal*, occurs the following passage: "Heat is life, or one of the essential conditions of life which the instinct of the bees has taught them to carefully conserve." In making this statement we had reference both to the protection and the system of ventilation that should be given. We have nothing to add to this now but believe more firmly than ever that on the conservation of the heat of a colony of bees will depend much of our success in the wintering of the future.

We have the following conclusions to submit: The use of pollen or bee-bread by bees in winter confinement is not detrimental to bees when they need it, and, like most other animate beings they need it or its equivalent pretty often.

We consider its presence in the hive indispensable to the most successful wintering.

Hibernating bees winter the best; frequent flights are unnecessary.

Bee-diarrhœa in a properly ventilated hive having good natural stores does not occur except the temperature in the hive falls so low as to condense the vapor.

Upward ventilation is not only against the instinct of the bees, but mismanagement (as it usually is) in allowing the ready escape of heat from the cluster, has been a cause of incalculable loss.

Lower ventilation either out doors or indoors is the natural and proper method of ventilating bees in winter confinement, but it must be free.

Bees cannot be wintered here at the North on the summer stands with safety by any system of ventilation on a full set of combs in single-walled hives.

A large, well packed, double-walled hive is perfectly safe if its brood chamber be contracted to five or six combs. It is safe in this locality on ten to twelve combs. It gives the best result but is more expensive than cellar wintering.

DR. G. L. TINKER,

New Philadelphia, Ohio.

We think our friend the Dr., has given this matter a great amount of careful study else he could not have made so many valuable points. There are many points that we have carefully considered in years gone by. One is the moisture in connection with the excreta, never having known a case of dry dysentery. We have always found so much water associated with the discharge that we see no reason to doubt the assumption that if the moisture were removed bees would not be subjected to dysentery from the more solid residue. We have frequently set out colonies from their winter quarters and some time afterwards have opened or jarred the hive in order to stir them up to see if they were dead, but found them alive. Such colonies always winter well and we have yet to find one case of spring dwindling with such colonies. We presume this quiet state is what some of our friends call "hibernating." It appears that they are clustered together more closely and do not seem to have broken that quiet state as other colonies.

For the CANADIAN BEE JOURNAL.

WHAT SHALL THE HARVEST BE?

AS far as the yield is concerned this question may be safely answered—a short crop—aye a short crop and difficult to sell, but the man who has even a short crop may be congratulated because there are many throughout the land who have on hand an array of empty hives without either bees or honey to cheer their drooping spirits. We fancy such people sitting upon their hives, mentally, if not audibly, swearing over their misfortune and attributing their failure to bad luck—forgetful that management and not luck is the key to success in bee-keeping as it is the secret of success in every other undertaking. A glance around the county—at least as far as this section is concerned—reveals the fact that two thirds of last year's bee-keepers are out of the field, retired in disgust, bad luck sent them adrift. It is ever thus, ever was, is now, and ever shall be. We see it in business circles. We see it in farming, we see it in everything, the weak, the careless, the incompetent are elbowed aside by the financially strong, the energetic, and the skilful. The logic of events level up things to rational and normal condition. Every line of business has its ups and downs. When the storm of adversity does come it requires a steady, a courageous, and a skilful hand at the helm to weather the gale. The prudent mariner will busy himself in fine weather repairing his chafed running gear and putting his craft in ship shape order so taut when the hurricane comes down upon him he is prepared for the worst and rides out the storm in comparative safety. While the man who neglects such necessary precaution suffers the consequences of that neglect by seeing his braces snap, his masts go by the board, his bark driven high and dry on an inhospitable shore, and there battered and broken to pieces. So it is with the bee-keeper. The man who succeeds and comes out triumphant in times of adversity is the man who makes the best of his opportunities, who, by intelligent foresight and judicious management, prepares for the storm that will sooner or later overtake them. He is then in a position to take advantage of the propitious weather that invariably succeeds the hurricane. The foregoing reflections are the result of a glance over the apiarian fleet that were running under full sail and within sight of the writer last year. The hurricane of last Winter and the chilling blasts of a protracted Spring dismasted the greater portion of them, and we see disabled and battered hulks lying stranded at every point. Out of all the convoy I can see but three gliding proudly and uninjured over the placid waters this Summer. Why their safety

and success? My answer is, timely and proper management. And there are only a few in the business who attend to these matters as they ought to be attended to, we almost despair of seeing the honey resources of Canada utilized as they might be. Is it a fact that "the survival of the fittest" in this business shows the "fittest" to be a small minority of those who engage in it. Mayhap the C. B. J. and other sources will increase this minority which is "a consummation devoutly to be wished."

R. McKNIGHT.

Owen Sound.

We are sorry to hear that two-thirds have gone out of the business in your section of country, because there must be many valuable locations for bees in your neighborhood. From the large amount of increase and the great demand for bees this season it will not take very long to repair the breach in our ranks. If the honey crop is short this season, prices will certainly be in accordance with the scarcity, so that bee-keepers may secure about as much money as if they had had a larger yield.

QUERIES AND REPLIES.

UNDER THIS HEAD will appear each week, Queries and Replies; the former may be propounded by any subscriber, and will be replied to by prominent bee-keepers, throughout Canada and the United States who can answer from experience, as well as by the Editor. This Department will be reserved for the more important questions, others will be answered in another place. We hope to make this one of the most interesting departments of the JOURNAL.

HIVES AND COVERS.

QUERY No. 29.—Do you consider it essential in having the hives and covers beveled or mitred to keep out rain?

S. T. PETTIT, BELMONT, ONT.—I do not.

DR. C. C. MILLER, MARENGO, ILL.—No.

DR. A. B. MASON, WAGON WORKS, O.—No.

O. O. POPPLETON, WILLIAMSTOWN, IOWA.—No.

G. M. DOOLITTLE, BORODINO, N.Y.—I do not, use them so.

R. McKNIGHT, OWEN SOUND, ONT.—Not essential but quite desirable.

H. D. CUTTING, CLINTON, MICH.—No. A mitred joint is a very poor joint for the body of a bee hive.

M. EMIGH, HOLBROOK, ONT.—The bevel will do no harm. I would prefer a dry bottom board to commence Winter with.

ALLEN PRINGLE, SELBY, ONT.—The plan that is most effectual in keeping out rain (whatever it may be) is not only essential but best.

DR. J. C. THOM, STREETSVILLE, ONT.—Not at all essential, unless you possess a crow bar that you have no other use for than to pry them up with.

PROF. A. J. COOK, LANSING, MICH.—I know it is not. We find that a plain board projecting a little beyond the hive just as good. The bees stick it so that it never blows off, and we have never been troubled with wet even in the hardest storms.

H. COUSE, THE GRANGE, ONT.—Bee hives should be made water proof, more especially for those colonies wintered out doors, and the best plan to make them so should be used, and I think you will find both the single and double-walled Jones' hive complete in that respect.

BY THE EDITOR.—We used to think it was essential; are trying some now without beveling, and thus far have found no bad results. Will report later on.

SUNDRY SELECTIONS.

PLANTING HEDGES FOR WINDBREAKS.

J. W. GORDON, BRIGHTON, ONT.—Would you recommend the honey-locust for a hedge or wind-break for orchards? Would it prove a nuisance by throwing up sprouts in the adjoining land? Is it worth while to plant it for bee-pasture? What is the method of planting and cultivation?

We think it would grow very rapidly and yield considerable honey and some pollen just at a time when it is very desirable—about the beginning of white clover bloom or a little before. We do not think you would find any difficulty about the shoots, as any that may grow could be transplanted on the road-side, along streams and in various places; around line fences they would make a valuable wind-break. They increase the honey flow very much as they bloom

continuously for about a month and require no cultivation. They would require to be protected from stock.

PLANTING BASSWOOD.

How do you secure basswood seeds or trees for planting? What is the method of planting and cultivation. What objections are there if any, to the tree as a shade or ornamental tree or otherwise? Would it well supply the maple for shade or ornamental?

We secure basswood trees by going to the bush and digging up the young trees. There are many places where the woodland is not used for pasturage where thousands may be secured without difficulty. We find they are the best tree to grow that we can plant. Anyone can see trees growing here now that were planted from three to five years ago, some of them were so covered with bloom that they could scarcely be counted having, we believe, more than 1000 bunches of blossoms. The roots should be dug up as carefully as possible and not cut too close to the tree. When selecting trees take them from one to two inches through. We consider them the most ornamental tree we have, the beautiful conical tops giving them a very graceful appearance. Maples are liable to die after they get quite large. Basswood will grow more rapidly, make a shade much sooner, and when filled with bloom, as they are nearly every year, the sight is one that would gladden the heart of any bee-keeper. White basswood will some day be worth more than walnut at the present time.

BEEES IN PARTNERSHIP.

A. G. WILLOWS, CARLINGFORD, ONT.—I keep from sixty to eighty colonies of bees, and rent about forty-five acres of land, also do a small local supply business. Have about \$2000 capital in the whole business and my profits are from \$800 to \$1000 per annum. I have had about six years experience in bee-keeping. I wish to enlarge the business and take a friend in partnership. He has spent most of his life on the farm and has had no experience in bee-keeping, neither has he any capital to put into it. Now, what, in your opinion, would be a fair per-

centage of the profits for him to receive under the above circumstances? Any other advice you can give in regard to the matter would be thankfully received.

Without knowing all about the party that you purpose taking into partnership it would be hard to say what would be right in the matter. If the man assisted in working the farm as well as with the bees, he should have more than if he only attended to the bees, because knowing nothing of the business, he would be worth very little if anything, the first year, and the advantage of learning the business well would be equal to his labor. Then again, the amount of capital that you have invested should be taken into consideration, and as it is perishable to a certain extent, you should have more interest on the capital invested than if invested in real estate; ten per cent on the net capital would give you \$200 to be first taken out of the net profits of the concern; then if you gave him one-quarter of the profits the first year, one-third the second year, and one-half the profits after the second year, first, of course, deducting the amount \$200 interest on the capital. Without knowing further particulars, we should suppose this would be about fair for both parties.

FERTILE WORKERS LEAVING THE HIVE.

S. DIBB, DUNTRON.—Will fertile workers, after working in one hive for a while, leave it and enter the next hive kill the queen and take possession as it seems to me they do.

We have never known such an instance. Do not think they would.

WM. HUME, LEEDS VILLAGE.—I take the liberty of writing you for a little information in regard to the successful management of a few colonies of bees. I have kept bees in a very primitive style for the last ten or twelve years, but as yet have made no attempt to treat them in a scientific way, or according to the book. My bees, the common black ones, have been kept, until two years ago, in square boxes nailed with sticks passing through them to support the frames when they were filled with honey, and when requiring honey had recourse to the "Brimstone Pit," killing off every Fall large quantities of bees that had not sufficient stores

to winter. Two years ago I procured half a dozen new hives, two story ones with movable frames, the top story being for box honey, but having neglected them I find the combs in the new hive are built in every direction so that I am unable to examine the hives or do anything with them. I would be glad if you could advise me what to do as I would like to start on the new and approved methods, and there are no bee-keepers in my vicinity to whom I can go for instructions. I would like to Italianize some of my stocks during the coming Summer if possible. I see by the JOURNAL that a great many bee-keepers are complaining about the serious losses they have sustained in wintering. I will give you my plan and it is about the only part of bees that I have been successful with. I can almost count to a certainty on putting out as many bees in the Spring as I put away in the Fall, provided their stores hold out. My bees are wintered in a large cellar, built of stone and lime, entirely frost proof, but what the average temperature might be I could not tell as I never tested it. The bees are placed on shelves about half way between the floor and ceiling and quite close together, the front of the hives turned to the wall and the openings all left the same as in Summer and there they remain all winter quite safe. I put away twelve colonies on the 25th of Nov. last and on the 19th of April took them all out to give them their first flight and found them all in good order and plenty of bees to commence work with.

THOMAS J. WEBSTER, OAKWOOD, ONT.—I commenced with ninety colonies, increased to one hundred and fifty four colonies by natural swarming. I took fifty-four of the best for extracting the rest, I let swarm as I wanted to put them in the Heddon hive. I put in foundation in part of the frames on wires full size and some of the frames I put in strips as my foundation was cut too large. The first swarms I kept taking frames of brood from to put with the next swarm and it left me a poor chance to get much comb honey as some were late swarms. I put the honey board on some of the best and cases on top with starters of foundation and they went up and filled them just about ready for sealing over. I then raised them up and put in an empty one under, but it was almost too late in the season and they left me with about 150 not finished sections, but they will come good for this season. I got 500 well filled sections. The season for honey was very short and the best was over before I got on my surplus cases. I extracted from the eighty-four hives 6,700 lbs. of clover and basswood

honey. I use the Quinby hive for extracted honey and put on extra frames on the top. I don't extract surplus from the bottom story. I only had combs enough for thirty hives till I got more built out or I would have had a great deal more honey but it wasn't so bad for a poor season. My bees are all Italians but seven or eight and I intend to put Italian queens in them this Spring.

J. RAYMOND BALL, KNOWLTON, QUE.—Bees are booming here now on Alsike Clover. I have not seen anything in the JOURNAL about Raspberry as a honey producing shrub, but with us it has beat anything yet. This Spring strong colonies have filled their hives from this source. I had one colony that gathered four pounds in one day from raspberry alone. I would like to tell how I am increasing my bees. As soon as a colony gets queen cells well started I take an empty hive with six or eight frames of foundation or empty combs and one frame of unsealed brood and place the same on the stand you wish to divide, then shake the bees all into it from the other hive but leave three or four of best frames of sealed brood and a few bees; give them a young queen or cell ready to hatch, then place the same in the place of another strong colony about ready to start cells. In that way you get one colony from two and usually subdue the swarming fever for a time at least. I forgot to say that the surplus combs of brood that were in the first hive can be given to strengthen weaker colonies, or can be given to nuclei. If there is a better way to divide or to build up colonies at this season of the year I should like to know the method. Happening to be in the woods yesterday and coming across some basswoods I saw a sight that would make any bee-keeper happy. They were completely loaded with buds! How long after they commence to bud before the blossoms will be out? Who can tell? If nothing unusual sets in we will all have big reports to make this Fall. I am well pleased with the C. B. J. and think we are getting more than the worth of our money. It is a marvel of cheapness.

BASSWOOD IN BLOOM YET.

ILA MICHNER, LOW BANK, MONCK CO., ONT.—It seems strange to hear you say basswood has ceased to yield with you, so much farther North than us. Our bees are gathering nicely yet from trees close to the lake shore.

ABNER PICKET, NASSAGAWEYA, ONT.—Started the Winter with 26 hives. I put out in April twenty hives, some of which were weak having been but small swarms in Fall. Wintered in Jones' hive in bee house. Though I have not made much headway since I started I do not feel discouraged; many have lost all they had.

THE CANADIAN BEE JOURNAL.

D. A. JONES.

F. H. MACPHERSON

D. A. JONES & CO.,

EDITORS AND PUBLISHERS,

BEETON, ONTARIO.

WEEKLY, \$1.00 per Year, Postpaid

BEETON, ONTARIO, AUGUST 19TH, 1885.

Discount of ten per cent off all orders for sections. For prices see this issue of JOURNAL.

The first session of the Ontario Bee-Keepers' will be held on the evening of Thursday, 10th Sept. Full particulars next week.

Any of our friends who have any spare copies of the second issue of the CANADIAN BEE JOURNAL will oblige us very much if they can send them to us. We are out of that issue entirely.

We are sorry to learn that Mr. M. B. Holmes, of Delta, finds it necessary to dispose of some of his colonies owing to ill-health. See his advertisement in this issue. We always found him upright and honorable in his dealings.

The Michigan State Fair will be held at Kalamazoo on Sept. 14, 15, 16, 17 and 18. The "Honey" department will be on a large scale, the premium list amounting to \$300, and for copy of which Friend Cutting has our thanks.

Friend Jas Heddon has suggested that we shall use "small-cap" headings on all our "Selections" so that at a glance our readers may see just what is in the article before them: it is a good idea and we thank friend F. for the suggestion. We will "fall into line" at once.

Speaking of our "Foul Brood Pamphlet" the *Live Stock Journal*, of Hamilton, says: "The author of this little pamphlet has gone into the subject with his usual energy, and after having shown in the plainest manner the tokens of disease, the mode of cure is given."

The Agricultural and Arts Association having received a grant of \$10,000 from the Dominion Government have issued a supplementary prize list in which the prizes are largely augmented in some departments. Among these is that of "Bees and Honey, etc." For one of these prize lists a card, with address, to the Secretary, Henry Wade, Toronto, will be all that is necessary.

Our friends will have missed our customary articles from Friend Pringle, during the past few

weeks, consequent, we just learn, upon indisposition in part, and upon being so busy with his many other occupations. We are pleased to know, however, that we are likely to have his letters regularly again, and as many friends have written, specially referring to the good advice he always gives, all will be glad to know this.

Dr. A. B. Mason, Wagon Works, Ohio, has favored us with a copy of the premium list of the Tri State Fair to be held at Toledo, Ohio, Sept. 7, 8, 9, 10, 11 and 12. We find that the Dr. is Superintendent of the Apiarian Department, and that about \$130 is awarded in prizes for Honey and Supplies. The charge of this department is in the right hands, we should judge, to make it a success.

Those who know anything of British bee-keeping will be glad to hear of the appointment of T. W. Cowan, Esq., to the editorship of the *British Bee Journal*, rendered necessary by the death of the late highly esteemed. Rev. H. R. Peel. Mr. Cowan's past experience specially fits him for the position to which he has been appointed, and we predict that the usefulness of the *Journal* will be largely increased under his able superintendency. He is the author of the *British Bee-keeper's Guide-Book*, a work which has met with surprising success since its introduction to the public some four years ago.

A MISTAKE.

We have often thought of saying something about this matter, but feelings of delicacy have restrained us. We feel now, however, that the time has come when, in justice to ourselves and our customers, we must speak out. The matter to which we refer is the fact that there are *two Jones* in the supply business in Canada, and the name of *Jones* in connection with the bee business is so well known throughout both Canada and the States, that the *name of itself* is sufficient to draw business, consequent we believe upon the honest endeavors we have made to advance the interests and cause of apiculture—the expressed opinions of our many friends leading us to this conclusion. Mr. G. B. Jones, of Brantford, now manager for E. L. Goold & Co., began business under his own name some three years ago, after a couple of months sojourn learning the business in Beeton, and since that time we have had many letters from customers with remarks such as: "I can order from your Brantford house;" and "I bought from your Brantford branch last summer" and "I thought I was buying from you till I found out differently." Of course we had to write all and explain that *there was no connection whatever* between the institutions—nothing beyond a similarity of name. We are afraid that sufficient pains have not been taken by

everybody to correct the errors which a similarity in the two names leads to. We are not writing in a jealous spirit at all. We have no need to feel that way; our sole object is to explain that there is no connection between the two houses. Another reason why we mention the matter is because of an error which has just appeared in the August number of the *Live Stock Journal*, published at Hamilton. A portion of the pamphlet on "Foul Brood" is re-printed and credited to D. A. Jones, of Brantford. The error we feel satisfied was unintentional, but still perhaps of sufficient importance to warrant us in writing as above.

ADVERTISEMENTS.

LOOK HERE.

To introduce my strain of pure bright Italians, equal to any in the United States, I will offer for August, tested Queens, \$1.00 each; one-frame nucleus, consisting of one extra select queen, one frame of brood, one-half pound of bees, for \$2.00. If you want any bees, send me your address on a postal and I will send you sample by return mail. Beeswax or honey taken in exchange.

THOMAS HORN,
Sherburne, Chen. Co., N.Y.

Box 691.

A GRAND BARGAIN.

FORTY COLONIES of Bees for sale at half price. Owing to ill-health I am unable to care for all my bees, and will sell forty colonies fine Hybrids, Jones' Hive, 12 frames, plenty of honey for winter stores and just booming with bees, all in one lot at five dollars per colony (scarcely the value of the honey in the hives); in lots of twenty at \$5.50, and in ten colony lots at \$6. M. B. HOLMES, Delta, Ont.

BIG OFFER.

WE HAVE MORE COLONIES THAN WE CAN POSSIBLY CARE FOR, WITH THE EXTRA WORK ENTAILED BY OUR INCREASING SUPPLY BUSINESS. TO REDUCE OUR PRESENT STOCK WE WILL SELL

500 COLONIES

—AT FROM—

→ \$6.00 TO \$8.00 EACH. ←

STRONG AND IN GOOD CONDITION.

- Colonies containing 6 frames (all that we use to winter on) with good laying queen \$6.00
- Colonies containing 8 frames..... \$7.00
- Eight frames with extra queen..... \$8.00

These prices are for delivery at once. We will make special arrangements with those who may want fifty or one hundred colonies.

D. A. JONES,
BEETON, ONT.

ITALIANS AND CARNIOLAN CROSSES, originated from D. A. Jones' apiary, they are unequalled as honey gatherers. Colonies in Jones' hive. Prices very reasonable. Apply to

EDWARD J BERRY,
Brome Corners, P. Que.

GLASS JARS.

We have several gross of these jars ready for shipment by return freight or express, at the following prices:

		Gross.	Half gross
"Crown" brand"	1 Pint	\$14.75	\$7.50
" "	1 Quart	15.75	8.00
" "	1/2 Gallon	19.00	9.75

They are put up in half-gross cases—no charge for packing or cases.

D. A. JONES.

HOME-BRED QUEENS!

We are now prepared to fill all orders promptly for Queens;

Untested.....	\$1 00, \$1 25, \$1 50
Tested.....	\$2 00, \$2 50, \$3 00

These Queens are all raised under our new system of Queen-Rearing. We will only have a limited number for sale at \$1 00.

ALL MAY BE SENT SAFELY BY MAIL

D. * A. * JONES, * BEETON, * ONT.

150 COLONIES
—OF—
BEES FOR SALE.

These bees are mostly of the Heddon strain, only about half a dozen Italians colonies remaining that I considered worth keeping. I killed a few weeks ago the only Holy Land Queen that I ever possessed as her progeny did not come up to the standard. Nearly one-half of the above are reared from one Heddon queen whose offspring gave such good returns, season of 1884. I have found them vastly superior to the Italians being much less inclined to swarm, as a rule only doing so when crowded for space. As I must dispose of the above before another season I will sell as follows for present delivery.

One Colony of Bees, queen and brood, on eight Jones' frames (specially selected so that the queen can lay to the top bar on nearly all) and 25 lbs. of Winter stores for \$6.50. Two frame nuclei containing bees, honey and brood, \$2.00.

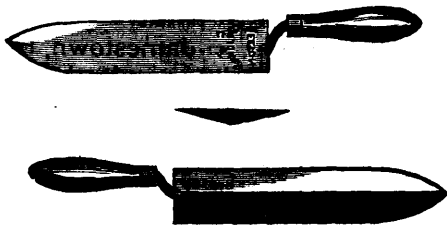
Four frames of nuclei, as above \$3.50. One Jones' frame of comb and one pound of bees, \$1.50. Empty combs 25 cents each, or 20 cents each by the 100.

The above are nett prices, packing or hives will be extra, excepting for empty combs. The cost of packing or hives as follows: Box for nuclei 25 cents each; for colonies, 50c; a 10 or 12 frame hive from \$1 20 to \$1 50. \$1 75 for my special 20 frame story and a half hive, which is double sided below, with one-inch chaff space, two chaff division boards, one chaff cushion (full length of hive), twelve empty frames (20 in all), and which has a special feeder whereby you can feed 50 colonies in 20 minutes without any work of lifting off covers and disturbing cushion. This hive has the entrance at the side which makes it much cooler in summer. For a partial description see "Gleanings" for 1884, page 611. It is well painted, comparatively light, as my son when not five years old could carry them. This hive is excellent for either comb or extracted honey as I frequently have it full of frames below for extracted honey and a case of forty-five one-pound sections on top, removing all at once at the close of the honey season unless they should swarm, which they seldom do. I will Winter full colonies in my cellar and deliver in good condition next Spring at the express office, for 75 cents extra if ordered and paid for in August. Cash to accompany all orders unless otherwise agreed upon.

G. A. DEADMAN,
Druggist &c., Brussels, Ont.

HONEY KNIVES.

We have just to hand a large shipment of honey knives from the makers, Lockwood Bros. Sheffield, England. These are undoubtedly the finest we have had made yet, being the most perfect in shape and neatness of manufacture.



These Knives are made of the Finest Razor Steel.

- Ebony Polished Handle, mirror polish.....\$1 50
- Ebony Polished Handle, glazed polish..... 1 25
- Wood Polished Handle, glazed polish..... 1 00

If by mail, add 18c extra for, each knife.
D. A. JONES, Beeton, Ont.

J. P. CONNELL. Hillsboro, Hill Co., Texas, can fill orders for **Pure Italian Queens** by return mail. Untested Queens, \$1.00. Tested Queens, \$2.00. Send me your order and send for my circular of Queens, Nuclei and bees by the pound.

FLAT-BOTTOM COMB FOUNDATION.
High side-walls, 4 to 14 square feet to the pound. Wholesale and retail. Circular and samples free.

J. VAN DEUSEN & SONS,

SOLE MANUFACTURERS,

SPROUT BROOK, MONT. CO., N. Y.

DADANTS FOUNDATION

is attested by hundreds of the most practical and disinterested bee-keepers to be the cleanest, brightest, quickest accepted by bees, least apt to sag, most regular in color, evenness and neatness, of any that is made. It is kept for sale by Messrs.

- A. H. NEWMAN, Chicago, Ill.,
- C. F. MUTH, Cincinnati, O.,
- JAMES HEDDON, Dowagiac, Mich.,
- DOUGHERTY & McKEE, Indianapolis, Ind.,
- CHAS. H. GREEN, Berlin, Wis.,
- CHAS. HERTEL, Jr., Freeburg, Ill.,
- E. L. ARMSTRONG, Jerseyville, Ill.,
- ARTHUR TODD, Germantown, Philadelphia Pa.,
- E. KRETCHMER, Coburg, Iowa,
- E. F. SMITH, Smyrna, N. Y.,
- C. F. DALE, Mortonsville, Ky.,
- EZRA BAER, Dixon, Lee Co., Ill.,
- CLARK, JOHNSON & SON, Covington, Ky.
- KING, ASPINWALL & CO., 16 Thomas Street, New York.
- C. A. GRAVES, Birmingham, O.

and numbers of other dealers. Write for SAMPLES FREE and Price List of Supplies, accompanied with

150 COMPLIMENTARY

and UNSOLICITED TESTIMONIALS from as many bee-keepers in 2883. We guarantee every inch of our Foundation equal to sample in every respect.

CHAS. DADANT & SON,
HAMILTON, Hancock Co., ILL.

1-6m.

ITALIAN BEES!

\$5.00 TO \$10 PER COLONY.

Blood Bros. Quincy, Mass

MUTH'S HONEY EXTRACTOR

Is second to none in the market. **Square Gears, Honey Jars, Tin Buckets, Langstroth Bee Hives, one-piece Sections, etc., etc.**

Circulars mailed on application. Send ten cents for "Practical Hints to Bee-keepers." Address

CHARLES F. MUTH,
976 and 978 Central Avenue, Cincinnati, O.

SECTIONS.

THE NEW ONE-PIECE SECTION.

Though these sections cost more to make than the old style, still we are supplying them at the same price. We keep in stock 3 1/2 x 4 1/2 (ours), and 4 1/2 x 4 1/2 (Langstroth), and can make any other sizes to order on short notice. Prices:

Per 1,000.....	\$ 6 00
" 5,000.....	27 50
" 10,000.....	50 00

Sample sections sent on application.

D. A. JONES,
Beeton, Ont

1-1f.

Bees & Queens

At greatly reduced prices. After June 15th I will sell two frames of Nuclei, with two pounds of bees in each, no queen, for \$2.25. Tested queens, \$1.50 each. Warranted purely mated, \$1 each. Untested, 75 cents each; to Canada 10 cents more each queen, unless five or more are taken at one time.

I. R. GOOD,
Sparta, Tenn

ITALIAN QUEENS.

TESTED \$2.00 TO \$4.00.

UNTESTED \$1.00 TO \$2.00.

COMB FOUNDATION.

ROOT'S IMPROVED CELL,

Sheets 12 inch, wide cut to order.

WM. BUEGLASS - PROPRIETOR
BRIGHT, ONT.

TINNED WIRE.

We have just bought a large lot of Tinned Wire, No. which seems to be the number best suited for frames and we are able to sell it very low:

Spools holding one pound, each.....	30c
" " one-half pound, each.....	18c
" " one ounce, each.....	07c
Reels, of from three to five pounds, per lb.	25c

The spooled wire is much more convenient than that on reels as there is no danger of tangling. These prices will supersede those in our price list.

D. A. JONES,
Beeton, Ont

IMPORTED QUEENS

BY MAIL

—DIRECT—

FROM ASIA AND FROM EUROPE.
Cyprians, Syrians, Carniolans, Italians
AND PALESTINES.

ALL REARED IN THEIR NATIVE LANDS.

Imported Cyprians and Imported Syrians.

Grades and Prices of Queens:	before		July, After	
	June 1	June	Aug	Sept. 1st.
Finest Selected Queens, each	\$12.00	10.00	9.00	\$8.00
Fine Prolific Queens, each...	10.00	9.00	8.00	7.00
Smaller & darker Queens each.	8.00	6.00	5.00	4.00

Owning an apiary in Cyprus and another in Syria, I have facilities equalled by no other person for obtaining choice queens of these races. I shall visit these apiaries during the coming winter and return in early spring bringing with me a fine lot of queens. Those who desire Imported Cyprians, or Imported Syrians VERY EARLY can have them mailed direct from Cyprus or from Syria to their addresses during March, and on all queens so sent I will assume three-fourths of the risks, that is, will replace at one-fourth the regular price any that die in transit, provided the purchaser receives mail from New York City within five days time.

Imported Carniolans and Imported Italians.

Grades and Prices of Queens:	before		July, After	
	June 1	June	Aug	Sept. 1st.
Finest Selected Queens, each	\$7.00	\$6.00	5.00	\$4.50
Fine Prolific Queens, each...	6.00	5.00	4.50	4.00

I have several times visited both Carniola and Italy, inspecting at each visit a large number of apiaries, and also have, on several years, kept side by side imported stocks of both of these races, and I unhesitatingly give the preference to the Carniolans. They are the gentlest bees known, equal the Italians in honey-gathering qualities and in point of beauty, and far excel them in prolificness and hardihood.

Cyprians and Syrians Fertilized in Carniola.

Prices two thirds those of Imported Cyprians and Imported Syrians.

All these queens are selected daughters of fine imported stocks, are reared in full colonies, and are fertilized in Carniola itself, where of course ONLY Carniolan bees exist. From these crosses bee-keepers may expect the best results which can be obtained through crossing any two distinct races.

Imported Palestine Queens.

(SO-CALLED "HOLY LANDS.")

Prices three-fourths those of Imported Cyprians and Imported Syrians.

Though Palestine bees possess some valuable qualities common to Cyprians and Syrians, still, on account of their very bad temper and poor wintering qualities I cannot recommend them for general introduction. To fanciers, however, who desire them, I will say I can furnish as fine imported queens as are to be had in Palestine.

During five years experience in bee-culture in the Orient, three of which were passed there, I have neither seen any foul brood or sign of foul-brood, nor have I ever heard of its existence there. None exists in this portion of Germany, and having examined the apiaries from which my Carniolans and Italians come, I can also testify as to their healthful condition.

Queens sent Post-paid Arrival with Safety Guaranteed.

Any Six Queens 5 per cent. discount; Ten Queens, 10 per cent.; Twenty Queens, 12 per cent.; Forty Queens, 15 per cent.

Remittances by international postal-order, bank draft, or by Canadian or U. S. bills in registered letter. Drafts on banks outside of Munich, 25 cts., additional for collection

FRANK BENTON,

"The Bavarian Apiary,"

MUNICH, GERMANY.

APIARIAN SUPPLIES

MANUFACTURED BY

W. T. Falconer - Jamestown, N. Y.

Are unsurpassed for **Quantity** and fine **Workmanship**. A specialty made of all styles of the **Simplicity Hive**, including the **Van Deusen-Nellis**. The "**FALCON**" **Chaff Hive**, with movable upper story, continues to receive the highest recommendations as regards its superior advantages for **wintering** and handling bees at all seasons.

DOVE-TAILED SECTIONS.

Same price as one-piece. Also manufacturer of **VAN-DEUSSEN FOUNDATION**. Dealer in a full line of **Bee-Keepers' Supplies**. Send for Illustrated Catalogue for 1885, Free. **Prices always reasonable.** Mention this paper.

\$400 WORTH OF BEES & BEE FIXTURES.

For sale or exchange for other property. The reason for selling out is because of lameness and inability to attend to the work. Apply to

R. SHANNON, Colborne, Ont.

July 22nd, 1885:

BEE HIVES, FOUNDATION,

Cheaper than ever. Honey Extractors, Wax Extractors. Our superior Honey Pails now ready to ship at any time. Send for Price List.

S. P. HODGSON,
 Hornings Mills, Ont

BEE SWAX WANTED.

Will pay 35 cents per pound for good pure wax. **COMB FOUNDATION** for sale to suit any frame or section. Wax worked on shares or for cash. All freight to Cambridgeville station C.P.R., if by mail to

ABNER PICKET,
 Nassagaweya, P.O., Ont.

BEE-KEEPER'S GUIDE, OR MANUAL OF THE APIARY.

11,000 SOLD SINCE 1876,

The twelfth thousand just out. 10th thousand sold in just four months. 2,000 sold the past year. More than 50 pages and more than 50 costly illustrations were added in the 8th edition. It has been thoroughly revised and contains the very latest in respect to Bee-Keeping.

Price by mail, \$1.25. Liberal discount made to Dealers and to Clubs.

A. J. Cook, Author and Publisher,
 State Agricultural College Lansing, Mich

FRIENDS If you are in any way interested in BEES AND HONEY.

We will with pleasure send you a sample copy of our **SEMI-MONTHLY CLEANINGS IN BEE CULTURE**, with descriptive price-list of the latest improvements in HIVES, HONEY EXTRACTORS, COMB FOUNDATION, and SECTION HONEY BOXES, all books and journals, and everything pertaining to Bee Culture. Nothing Patented. Simply send your address on a postal card, written plainly 4-t.f.

A. I. ROOT, Medina Ohio