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OUR OWN APIARY.

ODDS AND ENDS.

WE drove out to one of our apiaries the other day, and on arrival noticed that the bees were flying around in several places where no hives stood, that the bees appeared to be lost, and from their peculiar actions felt sure that some hives had been removed from their old stands. We called to the attendant in the yard, and asked him why he had removed the hives from their old stands after the bees had marked the location. A large number of hives had been sold out of this apiary, leaving only a few scattered ones on one side, that were not suitable for shipment and he said he wanted to put the hives with the others, as he did not like to see a few straggling hives about the yard, and had placed them in rows, to make all look neat and business-like. We then explained to him the danger of moving hives instantly from one part of the apiary to another; that they must be moved a short distance first, increasing distance day by day until they are all placed where wanted. We may say that the attendant in this yard is a very industrious student, and that this is his first year; he would not even allow a weed or blade of grass to grow in the yard, and he was anxious to have the hives look nice and straight in the rows. This reminds us of a visit we made to another apiary about thirty miles away. As we entered we noticed bees flying about where there were no hives. We also noticed on the side of the driving shed, which was about twelve feet high, bunches of bees, like miniature swarms, clustering in various places, beside large numbers in the cracks, and others

flying about acting very much like robbers. On close examination we found the cause. For a year or two some hives had been kept up in this shed, and as they were very awkward to handle and extract up there, the owner concluded to move them down to the yard along with the rest. Many of the bees returned to their old stands, thus accounting for the bees flying around and clustering as they did. The hives which had been removed were, on examination, found to contain very few old bees, in fact so depopulated were they that the entrances had to be made very small. We also noticed several places about the yard where bees were flying around hunting for their hives, where only a few hours before they had been accustomed to go, but the hives had disappeared, they knew not where. This moving of hives from one part of the yard to another without any precaution, other than picking them up and carrying them away, and setting them down again in another place, should not be; it simply means serious injury to the colonies, and sometimes entire loss, depending on the season of the year.

Fruit bloom is quite over with us now. Mountain ash has yielded plentifully. Thorns are just beginning to bloom, some of the trees look from a distance as if they were covered with snow, so great is the profusion of bloom. The thorn bloom just fills the gap between fruit bloom and white clover. In locations where there are large numbers of thorn trees, it seems to us the yield from that source alone should be quite large, as they produce large quantities of honey, and the yield lasts about two weeks. The other day our students had quite a field day, as we succeeded in getting an old box hive to transfer. The owner brought it fifteen miles; we transferred it free of charge, and he took it home with him the same day. We

expect to have several lots to transfer on the same terms, so that all the students may have the opportunity of trying their hand. The hive contained but very little honey, and the little there was seemed to be more appreciated by the clerks and students than by the bees, and they, the bees, had to quietly put up with the inevitable.

HOW TO COLLECT AND PRESERVE SPECIMENS OF HONEY-BEARING PLANTS.

(CONTINUED FROM LAST WEEK.)

A COLLECTION of dried specimens is useful only for reference—to refresh the memory in leisure hours. The chief benefit to be derived from collecting Honey-plants is the valuable information one gets by close observation while *making* the collection and the closer and more systematic the observations and investigations the greater will be the amount of practical benefit by learning how to increase the amount and improve the quality of our supply of honey. Not only should observations be *made* but the results should be recorded in concise form, and the most suitable place for this record would seem to be on the sheet of paper on which the dried specimen is mounted.

Some of the things to be observed and noted: Is the plant a herb, a shrub or a tree? Is it annual, biennial or perennial? Is it hardy? Is it native or naturalized? Widely diffused or rarely found?

Notice the structure of the blossoms, the position of the nectary, whether the honey be accessible to our bees. At what season of the year does the plant blossom? How long does it continue to blossom? Does it blossom freely. Note the kind of soil on which it grows best, whether in wet or in dry places, whether it be difficult to eradicate, whether the yield of honey be great or small, and the quality good or bad, etc., etc. Lastly having discovered desirable plants, by

what means can they best be multiplied?

Much of the information adverted to can be obtained by close observation in a single season, while in some cases, observations must be carried on from year to year. It is wonderful, when one begins to observe closely, how much is seen and learned, "not dreamt of before in his philosophy." Try it, friends, your time will not be wasted.

BEEES STARVING FOR WANT OF STORES.

BEE-KEEPERS should at this season, examine their colonies every few days, as during the gap between fruit bloom and white clover very little honey will be gathered by the bees. We now find colonies which we supposed had plenty of stores; to last until white clover should bloom, getting scarce of stores, several almost at the point of starvation. One or two days neglect at such a time will cause the destruction of all the brood. See that every colony has plenty of food as the consumption of food is now very great, more being consumed in one day than there would be during a week in the Fall of the year. Anyone who neglects this precaution will pay the penalty by the loss of his honey crop, if not of his entire colony.

FOR THE CANADIAN BEE JOURNAL.

WINTERING SUCCESSFULLY.

THE POLLEN THEORY.

I THINK I have demonstrated the truth of the following propositions: First. All bee diarrhetic excreta, will be found replete with nitrogen, always from pollen, and nearly or quite always containing pollen grains, with a little animal tissue, which gives it its nauseous odor, and assists in the coloring.

2nd. No genuine bee-diarrhoea can take place in a hive containing no pollen.

3rd. Pollen is found in combs in two forms. In bee-bread and floating in the honey.

4th. Bees cannot consume honey containing it without consuming the floating pollen.

5th. Bees will not consume bee-bread except

after exertion which causes a waste of tissue. (If the temperature sinks so low that the bees have to add to other methods of maintaining warmth, that of physical exertion, such exertion producing a waste of tissue, will be followed by consumption of bee-bread, if it is in reach, and if not by great physical depletion of the bees, which, if carried far enough, will destroy their life. If, however, the bee-bread can be had, dysentery will soon follow unless the bee can have a purifying flight in the meantime.)

If the above be correct, of which I have no doubt, and in which I believe Professors Cook and Kedzie share my opinions, it will be seen that in any location always yielding clear non-nitrogenous honey all the apiarist needs to do to insure success, is to keep his bee clusters above that temperature which induces any physical exertion upon their part.

In all such locations successful wintering depends alone on temperature. I think the future is going to develop easy practical processes for correctly determining the wintering qualities of our natural stores; but here we have developed a system of management which brings our bees out nearly honey-less in the fall (the same having gone into surplus) when we feed sugar syrup for winter, at a handsome profit.

I note that as we advance to northern latitudes, where we experience the longest confinement, as a rule, we find the clearest honey. Could Northern Michigan and Canada have the frequent flights of Missouri and Kansas, bee-diarrhoea would be of little dread to our bee-keepers; but as we advance southward we find the honey increasing in nitrogen.

I am very glad to have demonstrated during the past winter, the conditions upon which bees consume pollen in the form of bee-bread, for a knowledge of the facts very much simplified preparations for successful wintering.

Now, we need not lift a comb, in preparing our bees for winter. No doubt you have readers who disbelieving in the pollen theory—as they should and must do till they have sufficient evidence—think success rests alone in temperature in all places and seasons. Let us reason upon this one moment. If it was just a question of the rising and falling of the mercury, would we, who have been wintering in cellars and all climates, outdoors, protected, and unprotected, have remained in the darkness so long? No it could not be. Temperature is the great auxiliary, but not the prime manager of bee-diarrhoea. Temperature cannot and does not furnish the material for chemical analysis. Last winter I put into a cellar 73 colonies of bees, whose hives contained combs of sugar syrup and nothing else. Not one

showed any signs of dysentery. Their bodies at all times were apparently as slim as in summer. Notwithstanding I allowed the temperature to go below twenty degrees Far. for several weeks, and it was hovering about the freezing point nearly all winter, and ten colonies in the same cellar upon natural stores, all had diarrhoea, all perishing but three. Nearly all of the seventy-three came through alive, though very many bees flew out upon the cellar bottom and perished. When I set those bees out for a flight on the 19th day of last April, after 151 days confinement, the day being warm and pleasant, with no snow, they flew lively, darkening the air, yet not one bee could be detected voiding *anything*, not even water. My white hives and my white shirt, failed to show one spot from these bees.

Do you wonder that I believe that I have mastered bee-diarrhoea? With forty-nine sugar-fed colonies, wintered outside, only partially protected, I demonstrated that bees could be frozen to death, upon the best of stores within the cluster, with no diarrhoea at all.

I was aware that my cellar was dangerously cold, but I thought the danger existed only with the stocks upon natural stores. I found my mistake, and demonstrated that bees will readily succumb to cold, actually freezing to death. I opened and examined these frozen bees but found no faecal matter whatever. Well we care nothing about old Boreas, for everyone knows how to keep their bees warm. But in the past, with this warmth, we have known our bees to perish with diarrhoea, but in the future with pure oxygen food added, we feel sure that success is certain. The cellar mentioned was extremely damp all winter long, this dampness was equal to a few degrees lower temperature; I think otherwise, of no ill effect. Colonies that were damp and mouldy, as in fact nearly everyone was, came through in splendid condition. Mr. Boomhower, of N.Y., who has always wintered successfully, writes me that he has wintered in eight different cellars, some dry and some damp, and always with uniform success. Mr. Barber, also of N.Y. State, another successful one, writes that he believes a damp cellar better than a dry one. I have had no experience and have no theory with which to controvert his opinion in this respect, but with Mr. Boomhower, I do not believe that dampness is *necessary* to success. I do not believe that ventilators are necessary. I have no knowledge of apiculture, experimental or otherwise, that tells me so.

My cellar is eighteen by thirty feet. I shall put between two and three hundred colonies therein, in hives without any upward ventilation, and as soon as the mercury in the cellar sinks below

forty-five degrees shall close it as near air tight as possible, and keep it thus until I open it to lower the temperature.

I wrote to Professor Cook for his opinion—and who is better fitted to give one—regarding the amount of air a colony consumes in winter. His reply was, that as long as they remained inactive he presumed the air within the hive would last them all winter.

Notwithstanding my bees had been abused by the low temperature of my cellar, I believe that I could have kept most of these colonies in good health till next October had I kept the temperature at forty-five to fifty degrees. I consider that we have the question of confinement entirely at our disposal. I believe I shall winter my bees with perfect success in the future, for I believe the problem is solved. This article may not be considered of value to those who have heretofore succeeded, but there are many who have not and those either did not know why they succeeded and others failed, or else intentionally or unintentionally kept their light under a bushel.

If the past winter does not mark an epoch, not only in my own, but the success of others who will follow the laws of the Pollen Theory, I will come up smiling and acknowledge my error. In a back number you spoke about wintering bees without combs. I had studied upon that point when I feared the presence of bee-bread in hives. Under all conditions, but as I now understand it, nothing can be better or cheaper than combs upon which to winter. We have no honey to extract; no combs to remove. If you had seen us feed 1,200 pounds per hour last autumn (three of us) you would agree with me regarding the economy, despatch and fun of the process.

I will try to be at the National Convention next December and show you a sample of my improved feeder, and then leave you to judge.

JAMES HEDDON.

Dowagiac, Mich., June. 1885.

Many now believe that there is less pollen in more northern localities than there is further south, and where the bees have been put in proper condition with the temperature of the repository right, we have never found pollen injurious, in fact, last year, we selected the combs containing the most pollen, and put them into hundreds of hives, and they wintered equally as well as those without pollen, or at last having only a little. Yet we know an instance that occurred this year, of two colonies

of bees starving to death in a repository containing nearly 200 colonies; the combs were clean and free from mould, not a drop of honey would be found in the hive, and the bees had become badly diseased with dysentery. It appears to us that after consuming their honey, rather than starve, they attempted to sip the honey out from amongst the pollen, some of which had soaked into it. When pollen is placed in cells, the honey being placed on top and capped over, any one examining these cells by cutting them down even with the pollen with a knife, will find the pollen saturated with honey, where the two come in contact. If bees eat a large quantity to sustain life they would naturally accumulate a large quantity of residue. We have frequently noticed that starving colonies die with dysentery, or starvation, whichever you term it; they died in short from dysentery and hunger, there being no stores in the hive. We do not wonder that after giving pure granulated sugar stores a fair trial, you imagined that you had mastered the winter problem, and probably you think you will never lose another colony. If you take pains and put every colony up as it should be you will not lose one per cent if your cellar or repository is as it should be, but let us warn you, friend Heddon, that if you undertake to put 300 colonies into some nook or corner, without any ventilation, your hopes will again be blasted. While 100 colonies will winter with perfect success in a repository without extra ventilation, 200 would create too much heat, and the clusters will be broken. The bees scattered about on the combs would probably commence brooding, if they have pollen. At all events they would become so uneasy that they would not winter well. 50° is too high a temperature. Bees become uneasy at that temperature. 42° to 45° is best if the cellar is damp, in fact if very damp, it will do to

be two or three degrees warmer, the bees remaining just as quiet. We think it would require a very damp cellar to keep the bees quiet at a temperature of 50°. We consider yours a very valuable article, there being many very good and interesting points in it, regarding sugar feeding, and the temperature necessary to success. We think you will recollect as many others do, that we advised these many years ago at our National Convention, while many others advocated "Coffee A" sugar or natural stores. We have persistently advised the use of pure granulated sugar syrup stores. With regard to the bees freezing, there is very little danger of its occurring, if the combs are placed far enough apart to allow the bees to cluster compactly between the ranges of comb.

DRY FÆCES.

FRIEND CORNEIL IN "RURAL CANADIAN."

I HAVE lately spent a good deal of time in searching for dry bee-fæces amongst the matter collected on the bottom boards in winter. I am pleased to be able to state that I have satisfied myself that bees do void fæces in the hive of such consistency that the form is retained, and no stain is left where they drop. If any one has any doubts about the matter I hold myself ready to take the debris from a bottom board and pick out bee-fæces for him in his presence. This is no new discovery. The late Moses Quinby, Mr. Abbot, of England, and others knew the fact long ago, but of late it has been called in question. Those who write in favor of the pollen theory claim that healthy bees never void except on the wing and that their excreta is always liquid. They also claim that the retention of pollen for several months in the intestines is sure to produce dysentery. They are mistaken in both cases. Bees do void their excreta in a solid state in the hive, and it consists very largely of pollen or pollen husks. On their first flight my bees discharged long strings shaped somewhat like a sausage of several links, and so dry that no stains were left where they fell. In some cases the voiding occurred while the bees were on the wing, and in others after having alighted and while walking off. I shall always aim to enable my bees to evaporate the water from their bodies so that they can void their excreta in this form. This is the hu-

midity theory in a nutshell. I have exactly similar pieces in my collection picked from beneath the clusters, besides pellets of fæces matter in nearly a globular form. The best way to collect these particles is to sweep contents of the bottom board into a sieve in order to get rid of dead bees. Some of the matter may then be shaken from a finer sieve on a pad of writing paper and the fæcal articles picked out with the aid of a magnifying glass. My experience is that the matter taken from the bottom boards where stocks have died is richer in fæcal droppings than that from stocks which have wintered well. I shall be very much pleased if some of our friends will take an interest in this matter. There is still much to be learned, and close observation will reveal matters of interest where none are supposed to exist.

S. CORNEIL.

Lindsay, May 4, 1885.

FOR THE CANADIAN BEE JOURNAL.

MORE FROM CUBA.

AS YOU have expressed your opinion that the Holy Lands would probably be the more desirable bees for Cuba, on account of the climate being more like that of their native country, I must take exception to it. Now in my opinion, it is not the climate, for in natural history I can find nothing to prove that you are right in your conclusions. The Holy Land bee is all ambition, ever restless, ever in a hurry, at work early and late, ambitious and persevering. Now, Mr. Jones, is that characteristic of the people, or the animals of hot climates? I think you will admit that it is not, but quite the reverse. That the Holy Land is the best bee for this country, there is no doubt, for their ambition to breed and gather honey can be fully satisfied here. Now, let us think the superior ambition of the Holy Lands are due to a combination, or concentration of most of the desirable traits in one. I have thought, and have so expressed myself, that if I could only breed the irritable disposition out of the Holy Lands, and still retain their ambition and prolificness, I should have made one grand step forward, and to that end I have been directing my energies for the last year, and now I am happy to say I have some as quiet and peaceable Holy Lands as any of the most docile Italians; and they have not seemed to have lost any of the characteristics that have made the Holy Lands so popular. But in an apiary as large as this, in spite of all our efforts to control the rearing of objectionable drones by full worker sheets of foundation in both stories, drones will come into existence, that we would

not like to have mate with our queens if we could help it; "thereby hangs the tail." The mating of the queen, when so much depends on her mating, what shall be the character of her progeny. When we get a queen mated to suit us we feel as though we would like to have her live "a hundred years." We are sailing in smooth water now, I assure you, and if no great disaster befalls us, we can, with a large degree of confidence, hope for a large honey crop next Winter. Now, Friend Jones, by all means make a visit to Cuba, at your earliest convenience, for I know you would be well repaid for the time and money, for this is truly a land of honey and some milk.

A. W. OSBURN,

San Miguel de Juruco, May 7th, 1885.

We meant that the climate of Cuba is more like that of Palestine and Syria, than the climate of Canada was like that of either country. You are quite right; there is very little ambition about many of the natives of the East, yet we think the bees an exception, in fact some claim that they are *too* ambitious; there is no doubt that difference in locality has much to do with success and failure with bees. Some races or strains are better adapted to some localities, and *vice versa*. We have succeeded in breeding some more amiable Holy Lands, and think that with careful breeding we shall have them just as we desire. We should be pleased to pay you a visit at your honey home in Cuba. Give us a description of your honey plants, their time of blooming, peculiarities, etc., as no doubt some of our friends have a longing desire (after the severe winter we have had here) to hear from the land "flowing with milk and honey," and where there is full summer weather the year round. But are there not some drawbacks? What about your hot season when there is no honey in the flowers?

We can supply all the back numbers of the CANADIAN BEE JOURNAL at the present time, and we shall be pleased to send new subscribers all the back numbers if they so desire.

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.

CHAFF OR SINGLE-WALLED HIVES.

QUERY NO. 18.—SIENANDOAH, IOWA.—Which are better for the north: chaff or single-walled hives?

O. O. POPPLETON, WILLIAMSTOWN, IOWA.—In my opinion chaff hives are decidedly the best.

S. T. CORNEIL, LINDSAY, ONT.—Chaff hives, provided the chaff be kept dry.

M. EMIGH, HOLBROOK, ONT.—All things taken in consideration I would prefer a single-walled hive.

DR. C. C. MILLER, MARENGO, ILL.—I am in latitude 42°, and have never tried anything but single-walled hives. As I winter in cellar perhaps I shall never try any other.

S. PETTIT, BELMONT, ONT.—Single-walled, made of nine-eighth inch white pine or cedar—cedar preferred. I would like to call attention to that kind of hive, one inch and one-eighth thick.

PROF. A. J. COOK, LANSING, MICH.—I do not believe in chaff hives for any place or climate. Bees better be in single walled hives and either packed several together, or put in a good cellar for winter.

G. M. DOOLITTLE, BORODINO, N. Y.—Chaff hives, no matter where wintered. Still if I used chaff hives and practiced cellar wintering I should desire a movable brood chamber so that this only could be carried to and from the cellar.

H. D. CUTTING, CLINTON, MICH.—I prefer a single-walled hive for summer use, with an outside packing case for winter, with space of about four inches all around, with chaff cushion on top. Pack with chaff, leaves, or any non-conductor.

ALLEN PRINGLE, SELBY, ONT.—Chaff hives, as they are not only much safer for outside wintering, but they preserve the heat in the hive, which is so essential in the cold spring weather when the brooding is going on. They are also better for summer as they preserve a more equable temperature for the bees, though I pre-

fer dry pine sawdust to chaff for filling in double hives.

DR. J. C. THOM, STREETSVILLE, ONT.—Single walled hives, as they are capable of so much easier handling during Summer or Winter seasons, they can either be stowed away in special repositories, being of convenient size for lifting, or, cased in such a way if left out of doors, as to be practically as suitable for wintering safely as any chaff hive I have yet seen.

H. COUSE, THE GRANGE, ONT.—Much depends upon the plan of wintering. If you have only a few colonies and desire to winter outdoors, chaff hives are preferable; but if your apiary is large and you are well provided with a good indoor repository, then I would prefer single-walled hives as they do not take up so much room, are more easily handled, and cost much less. I would also advise using the half-stories, filled with sawdust in spring and fall, to retain the heat, and in summer exclude it.

BY THE EDITOR.—Double-walled hives are most excellent in Spring and Fall; they keep the bees warm in the Spring, so that brood rearing can go on more rapidly, and they retain the heat in Fall so that the winter stores may be much better ripened, other things being equal; yet we use more single than double-walled hives, because they are more convenient to handle and less expensive. The new double-walled hive made of cedar is as light as a single-walled hive. Both styles have their advantages.

QUESTIONS & ANSWERS.

SPRING DWINDLING.

G. H. SHEERES, CLARKSBURG, ONT. — How many bees with a laying queen and brood will build up to a swarm. A good many of my hives have got reduced down to three and four racks not many bees but having queen and a little brood in all stages. Will it be best to double them up or let them build up themselves?

We have never found doubling up to do bees that were Spring dwindling badly very much good. Packing them around closely to keep them warm, so that they may carry on brooding even though they are weak, we have found to be the better way.

I see a good many bees crawling around on the ground in front of some of my hives. They seem to be swollen and cannot fly. What is the cause of it?

Their crawling out with swollen bodies is a pretty sure indication that they have not been very well wintered, and have lost most of their vitality which is doubtless one of the main causes of Spring dwindling. The old and worn out bees usually leave the hive and crawl about on the ground to die.

SOME INFORMATION ABOUT BEE HOUSES.

W. L. SOULES, HIGHGATE, ONT.—In building bee house for wintering bees in, how thick should walls of sawdust be, and about what depth of sawdust overhead, where bee house is to be built on top of ground "no elevation at all." Will common iron, gas or tube pipe, answer for underground ventilation and about what length of this would be needed underground. Will same size as gas or tube pipe do for ventilation through top of bee house.

From 20 inches to 2 feet. About 18 inches overhead. To have gas or tube pipe large enough would be too expensive; tile is better and costs less. From 100 to 200 feet, we prefer the latter. Would prefer wooden boxes with about one cubic inch to each colony of bees, or in other words for 150 colonies slightly over 12 inches square inside measure.

CLAMP WINTERING.

A. R. FIERHELLER, MOUNT ELGIN, ONT.—My loss in bees has been very great. The object I have in sending this paper to you, is to try and find the cause of failure. I have been guided by your mode of clamping as I understood it from your Price List. I will tell you just how I did, that you may give an intelligent answer, (if you will be kind enough to give an answer.) Have had a little to do with bees for three years. Last Fall they were in good condition, as I thought; most of them had natural stores, some were fed on sugar syrup—ten lbs. of sugar to half a gallon of water. As soon as cool weather came on I put chaff cushions on hives, left combs as they were in Summer, one and a half inches apart, put pieces of board on top of frames, that the bees might pass from one comb to another, and a clean quilt under cushion, made a clamp wide enough to set two rows back

to back, made clamp north and south, *bees on the East side came out best*, running out a floor on ground, side boards one foot high, then filled with chaff and straw that came from behind the machine at threshing; then put boards crossways; set two hives on a board; had fifteen inches space in front, and tramped it well down; had spouts five inches wide by three-quarters for bees to go out and in. Covered them two feet thick, well packed, on part of clamp I put some board with weights, say 100lbs to the colony; the other part of clamp was not weighted. First part came out best. The roof was as you say yours was, but full of chaff right up to the roof. Had them packed on Nov. 18; on Dec. 31 they had a partial flight, a few were on the wing on the 28th of February and on March 27 and 28th a good flight was obtained. When I set them out on the 22nd of April half of them were dead—thirty out of sixty—and many of the surviving ones weak; lots of dead bees in the bottom of the hives, Now as to the dead bees. Some died from dysentery; others were in a cluster, at side of hive with the honey all taken from one or two frames next to them. I think they must have starved. the cold being such they could not get to the stores. There was no mould excepting where the dead bees were banked up around the bottom of combs, and only in one or two cases then. None were queenless to my knowledge. I kept all snow shovelled and swept away.

We packed some in clamp and they came out in splendid condition. Of course those facing the east would come out best; bees never should face the west, at least not in cold climates, where winds are more prevalent in that direction. The natural stores doubtless had something to do with it. You ought not to have shovelled the snow away, but you ought to have shovelled it on them, if you had covered them with snow they would in all probability have been all right, quite likely there was too much room in the hive for them to occupy; the crowding of bees in a small compass is one of the things that must yet be learned. Give them no more combs than they can cover nicely, with sufficient stores for winter.

Friend F. did not write the above for publication, but as there are one or two points where lessons may be learned, he

will, we are sure, excuse us for the liberty we have taken.

HALDIMAND BEEKEEPERS.

THE Haldimand Bee-keepers' Association met at Nelles' Corners, on Friday, May 29th, when the following members were present: James Armstrong, President, in the chair; E. DeCew, Hugh Stewart. W. Atkinson, James Caldwell, Fred. Harrison, Robt. Anguish, Robt. Buckley, Andrew Vanderburgh, Eber Anguish, H. Smith, Robt. Coverdale, D. Jeffery, Lewis Miller, F. Mehlenbacher, Joseph D. Rutherford, R. W. Beam, A. Gee, Henry Calvert, Robt. McKenzie, D. Byers, James Williamson, Jas. Cullen, Wm. Kindree, D. Rose, J. Booker, G. Werner, I. Overholt, and the Secretary. The minutes of last meeting were read and approved.

The following report of winter losses was handed in by the members present;

| | Fall, '84 | Spring, '85 |
|----------------------|-----------|-------------|
| Jas. Armstrong..... | 80 | 63 |
| E. DeCew..... | 9 | 2 |
| Wm. Kindree..... | 30 | 25 |
| Hugh Stewart..... | 4 | 3 |
| A. Vanderburgh..... | 36 | 30 |
| Robt. Anguish..... | 42 | 32 |
| Robt. Buckley..... | 22 | 13 |
| Eber Anguish..... | 8 | 6 |
| H. Smith..... | 8 | 1 |
| Robt. Coverdale..... | 11 | 10 |
| D. Jeffrey..... | 3 | 3 |
| Lewis Miller..... | 20 | 19 |
| F. Mehlenbacher... | 12 | 9 |
| R. W. Beam..... | 23 | 14 |
| A. Gee..... | 13 | 4 |
| Robt. McKenzie..... | 5 | 0 |
| D. Byers..... | 13 | 8 |
| Jas. Williamson..... | 10 | 8 |
| Jas. Cullen..... | 16 | 14 |
| D. Rose..... | 30 | 24 |
| J. Booker..... | 4 | 2 |
| E. C. Campbell..... | 41 | 30 |
| W. Atkinson..... | 14 | 4 |
| Jas. Caldwell..... | 54 | 45 |
| Geo. Werner..... | 5 | 1 |
| F. Harrison..... | 4 | 4 |
| I. Overholt..... | 6 | 4 |
| D. Campbell..... | 12 | 7 |
| Wm. Jack..... | 12 | 7 |

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The cause of loss was generally attri-

buted to leaving too many frames in the hive, thus giving the bees too much space to keep warm. A few starved to death for want of stores, a few from dampness and a few from dysentery. The above report is not complete, several members who lost heavily not being present.

COMB OR EXTRACTED HONEY, WHICH IS THE MOST PROFITABLE?

The President said he had not much experience with comb honey, but he thought extracted honey the most profitable, as it was easier to get ready for market, and the yield was much larger.

Mr. DeCew had never tried to get comb honey, and thought extracted honey the most profitable.

Mr. Rose spoke in favor of comb honey but thought the market was too limited.

Mr. Kindree believed there was more money in extracted honey than in comb, and it was easier to get ready for market.

Mr. Smith was in favor of extracted honey.

Mr. Gee thought it required a first class bee-keeper to succeed in getting comb honey, and that farmers should leave the comb honey to experienced bee-keepers.

Mr. Beam spoke in a similar strain.

Mr. Holterman said a great deal depended upon the season. In a good year there was no trouble in getting comb honey.

BEE PLACE TO SECURE COMB HONEY.

The President said for his part he always placed his sections over the brood frames in a half story, but he intended this season to try sections in the body of the hive, behind a perforated metal division board.

Mr. Rose always secured his comb honey in a box over the brood chamber.

Mr. Kindree had no much experience in comb honey, but he thought over the frames was the best place.

Mr. Holterman thought it depended upon the style of hive. In the Jones hive it was better to raise it in the body of the hive, while in the Langstroth hive it was better over the frames.

Mr. Armstrong had no trouble in obtaining comb honey in the upper storey of the Jones hive.

HOW TO SELL OUR HONEY TO THE BEST ADVANTAGE.

The President thought the first thing

to be done was to put it up in a neat shape, nicely labelled, and not in too large packages. He preferred glass, as sealers could always be sold for what they cost, while people did not care to pay for tin.

Mr. DeCew had tried glass and tin, labelled with his name, and found that the people preferred to buy in glass.

Mr. Holterman believed glass was the best, as the package could be sold for what it cost, but for shipping a long distance he would recommend tin. He thought small packages were preferable.

Mr. Kindree spoke in favor of glass, and thought the quality of the honey should be marked on the label.

A number of members objected to this, as it would give a great deal of trouble, and not one in ten could tell the difference between the several kinds of honey.

QUESTION DRAWER.

In answer to Mr. DeCew, the President thought putting sticks over the frames was preferable to putting holes through the combs.

A number of other questions were asked, and replied to, but they were not of special importance.

Moved by Mr. Stewart, seconded by Mr. Harrison, that the meeting of the County Bee-Keepers' Association be held at Cayuga, Nelles' Corners, Jarvis and Hagersville, and that the next meeting be held at Jarvis, on the 25th of September, at 11 o'clock a. m.

E. C. CAMPBELL, Secretary.

SUNDRY SELECTIONS.

WM. L. O'NEIL, WEST MCGILLIVRAY, ONT.—Bees came out all safe, but dwindling. Twenty-one swarms in Mitchell hives, wintered out of doors on summer stands.

J. W. K. SHAW & CO., LOREAUVILLE, LA.—Wish you all success. At this writing, (April 24th.) honey from the china lilac, white clover, &c., abundant. Season backward. Spring swarming nearly over.

CHAS. A. HUMBER, GODERICH, ONT.—I find the JOURNAL to be profitable, interesting, and a guide and help to amateurs, like myself, and think a want has been supplied to Canadians in this particular, and in your hands success is certain.

JOHN HENRY, HARRISTON, ONT.—Last year I was very busy building, and did not give my bees the attention they should have had. I put into winter quarters sixteen hives, and this spring have only nine, and two of the strongest ones are pretty bad with dysentery.

W. H. HALES, BURLEIGH.—In 1883 I started with six colonies, two of them in old box hives. I got very little honey from the latter; took 360 lbs. in all, sold one colony, put twelve in an open shed for winter, packed in chaff, took them out on the 18th of April last and found three dead with plenty of honey in the hives. The other nine are in good shape.

H. M. MOYER, HILL CHURCH, PA.—I have had good success in wintering my bees; lost only three out of forty-eight colonies, and these had not enough food. It was very cold this winter and many lost heavily. I winter out of doors on granulated sugar syrup mostly. I have Italians Holy Lands, and Cyprians. I always put four corn cobs and one cross stick of wood on top of frames on each colony, and a sheet of Burlap on these and then four inches of chaff.

WESLEY HANDY, FAIRFIELD, ONT.—Bought one hive a year ago, wintered it and increased to five last Fall by twice natural swarming and buying two queens and dividing the brood among them. Lost one colony this Winter which is not bad, considering my inexperience and the fatality among the stocks of our bee-keepers. I packed them with chaff cushions.

N. PEARL, GRAND GULF, MISS.—This is the finest country in the U. S. for bees. Feed is abundant and the climate suits them admirably, it not being cold enough in Winter to freeze them. They can work nearly every month in the year. I have twenty-one colonies working in two-story hives, nine frames to each story. All the colonies which swarmed first this season have the lower story filled.

MRS. MCKECHNIE, ANGUS.—Of our 166 colonies three were dead; of the seventy in the bee-house none were dead but all good and strong with eggs and brood now, (April 22nd). Of three that were dead, one starved, and that quite recently as I saw them flying three weeks ago, but a mouse got in and eat the honey in the hive; the others had sealed up the holes in the comb after they had been put in and died on empty combs, with lots of honey on each side of them. Have six weak colonies which will require doubling up. Sold all my honey, 5,862 lbs., by March 28th, and could have sold another 1000 lbs.

JOHN S. DONEY, TYRONE, ONT., writing under

date April 21st says:—A great many have lost all their bees, but the cedar-lined hive filled the bill. Sides and bottom filled with leaves, lining of same on top in cushions twelve inches through, division board in centre, and two colonies in a hive. This hive, holding Jones' frames, makes a first-class two-story hive for either comb or extracted honey. The top hive is made of either half or one inch stuff, the main portion being constructed so that the top hive fits inside, space being left therefor, and is made sufficiently high so that the top hive can have its own cover, also a large cover over that, making it wind and storm proof. Bees did not consume one-half as much food as in single colonied hives.

JOSHUA THOMAS, HEREWARD, ONT.—Purchased two swarms last Spring, increased to three. Examined twenty pounds of honey. Examined and found frames full of honey and brood and thought they were doing well. Third week in October I packed them in sawdust for Winter. Found that they had only ten pounds of honey each, so fed from ten to fifteen pounds of sugar immediately. As winter drew on I banked snow all round the back and sides, keeping entrances open till January, when I allowed the snow to close all up. From January 1st to last week in February weather was very cold, below zero all the time, except a slight break when the temperature rose to 40° for a day or two. Shovelled snow from entrances and found the four colonies including the Italians I purchased from you all alive, but am afraid the Holy Lands numbered with the past. The murmur is strong showing the bees to be strong in number.

THE NAME OF OUR JOURNAL.

FRIEND SCHULZ, LETHBRIDGE, writes:—I saw in the CANADIAN BEE JOURNAL that Friend Newman is quite alarmed about the name adopted for that new enterprise, the C. B. J. I wish to state here that Mr. Jones is not to blame for the name his journal bears; it was named long before Mr. Jones ever consented to become its editor. All the Friends here called for a Canadian Bee Journal and we have it now, in distinction from the *American Bee Journal*. However, Mr. Newman should be glad, that his labor of twenty or more years has not been in vain, and that he sees now an offspring in the C. B. J. worthy of its parentship, the A. B. J. The child ought to bear the name of the parent.

This letter is only a sample of dozens of others which we have on our desks. With so much testimony in our favor we cannot but believe that our actions

in the premises are such as we have no cause to be ashamed of.

P. P. N. E. PELLISSIER, PELLISSIER, QUE., in report dated April 17th, writes: On Nov. 10th, 1883, put thirty-three colonies into Winter quarters. Set out in April following. One was queenless and was robbed. Sold nineteen. Keeping thirteen to begin season with and increased by late natural swarming to twenty-nine colonies. Extracted 1130 pounds of honey from sweet clover, buckwheat and golden rod; also took 112½ lbs. of comb honey in one-and-half lb. sections. Summer of 1884 was cold, frost killing fruit bloom, raspberry, basswood, red and white clover, in addition to all the grain. Bees seem in good condition though they have not had a flight since October 28th. Shall begin this season with twenty-two colonies, having sold seven.

WM. CONNELLY, OGDEN, IOWA.—Thanks for sample copy of JOURNAL, and, wish you success. I put ninety stands in winter quarters, eighty of them came through all right, but before I knew that nearly all my neighbors had lost their bees I sold forty for an even \$400. Out of over 500 stands heard from there is not 100 left. One man who put 160 in cellar took out twelve, and seven of them have since died; he had made it a success for the last twenty years. Farmers who had a few stands in cellar have none; another man put his bees—eleven colonies—in a closet upstairs, and they are all right. Out of seventy in bee house I only lost four, one of which was caused by mice. Of the twenty out doors, ten were in Root chaff hives, the other ten in Simplicity hives packed in boxes; my loss was on those with ten frames; those with eight frames and chaff cushion on side were all right. I think ten frames too many for such a winter. Bees had no day that they could fly from Dec. 10th. till March 2nd. In this county they went into winter quarters strong, as they gathered honey till Sept. 24th; one hive stored fifty-six pound sections in September, and many filled a crate of twenty-eight, so you see we were not short of bees. All of them outdoors had dysentery, while none in the bee-cave had. Now, I would like to accommodate Dr. Miller's baby, but I buy and sell. If I say 90-80 that is not right, as I have sold forty, and if I say 90-40, who will know of the forty I sold?

PRICES IN ENGLAND.

A Friend in England, writing to Mr. Sam'l Houghton, of Beeton, says: "I had fourteen swarms from five in Spring of last year. Took 200 weight of strained honey which I sold at one

shilling (24c.) per pound. My wax I sold at 16d. (32c.) per pound." The above was of course sold at retail, but its a pretty good price is it not?

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, JUNE 17TH, 1885.

SAMPLES TO THE U. S.

Will our friends in the U. S. please try to remember that it costs ten cents to send a sample section or honey tin to their country. Samples of labels only cost one cent for postage, as they go by book post. We mention this so that when any of them are sending they will not forget to send the necessary postage.

QUEENS FROM THE SOUTH.

Last week we received from H. A. Goodrich, Massey, Texas, a queen by mail. The queen and every bee was alive. Also four queens from I. R. Good, Sparta, Tenn., all alive. The four cages were made in a solid block of wood and were supplied with the celebrated "Good" candy.

CORRECTIONS.

In our article which appeared on page 163 of the JOURNAL, "How to collect and preserve specimens of honey bearing plants" one or two mistakes were made and not detected when reading the proof. Near the beginning the word "nestiferous" should be *nectariferous*, and on the next page, nine lines from the bottom the word "perhaps" should have read *properly*.

A. B. C. OF CARP CULTURE.

The mails have just brought us in the work on Carp Culture, which A. I. Root, editor of *Gleanings*, has been having prepared for some time past. We do not know that very many of Canadian friends have as yet had much to do with this species of the finny tribe, as their introduction into America is of but recent date. That this work will have much to do toward establishing an interest in their production is beyond a doubt. The name of the author, Milton P. Peirce, Philadelphia, is known throughout the United States as the most practical and scientific writer on the subject in that country. We can supply them at fifty cents each, postpaid, or orders may be sent to A. I. Root, Medina, O., the publisher.

If, when ordering goods for many advertiser in the CANADIAN BEE JOURNAL, our friends would mention that they saw the advertisement in the JOURNAL, it will be doing us a kindness.

CONVENTION NOTICES.

LISTOWEL BEEKEEPERS' ASSOCIATION meets in Listowel on Friday, August 28th. Geo. Brown, Sec.

HALDIMAND BEEKEEPERS' ASSOCIATION meets at Jarvis, September 25th, at 11 a. m. E. C. Campbell, Sec.

SOUTHERN WISCONSIN BEEKEEPERS' will hold their next meeting in the Court House, Janesville, on Thursday, August 27th, 1885, at 10 a. m. C. O. Shannoh, Sec.

WESTERN MAINE BEE-KEEPERS Association meet at North Paris, with Mr. W. W. Dunham, in September.

ONTARIO BEE-KEEPERS' ASSOCIATION, at Toronto, during the Industrial Exhibition, between September 10 and 20, 1885. Exact dates will be given hereafter. Jacob Spence, Sec., Toronto, Ont.

MICHIGAN STATE CONVENTION, at Detroit, Mich., on December 8th, 9th, and 10th, 1885. H. D. Cutting, Sec., Clinton, Mich.

The WATERLOO COUNTY BEE-KEEPER'S ASSOCIATION will meet at Berlin, on Saturday, Sept. 5th 1885. Anson Groh, Secretary.

PRICES CURRENT.

BEE SWAX

Beeton, June 17, 1885.

We pay 37½c. in cash or 40c. in trade for good pure Bee-wax, delivered at Beeton, at this date, sediment, (if any), deducted. American customers must remember that there is a duty of 25 per cent on Wax coming into Canada.

FOUNDATION.

| | |
|--|------|
| Brood Foundation, cut to "Jones' size" per pound... | 55c. |
| " " " to other sizes" | 56c. |
| Section " " in sheets per pound..... | 70c. |
| Section Foundation cut to fit 3¼x1¼ and 1¼x1¼, per lb..... | 75c. |
| Brood Foundation, starters, being wide enough for Frames, but only three to ten inches deep..... | 53c. |

ADVERTISEMENTS.

\$1.25 PER POUND for bees until June 30th. The same for untested queens to go with bees. Safe arrival guaranteed.

16-T. P. ANDREWS-210.
Farina, Fayette Co., Ill.

ITALIAN BEES. Dollar Queens and Nucleus Swarms, by the dozen very low. My bees are of the golden colored strain and for business qualities are surpassed by none. Send for circular to
W. H. PROCTOR,
Fairhaven, Vt.

ALBINO & ITALIAN QUEENS

At reduced rates. Those desiring to secure pure Albino Queens, will best accomplish their object by purchasing of the original producer of this valuable and beautiful race of bees. For circulars address.

D. A. PIKE,
Smithburgh, Washington Co., M.D.

ITALIAN BEES!

\$5.00 TO \$10 PER COLONY.
Blood Bros. Quincy, Mass.

LOOK HERE!

I can take orders for only five more colonies of **ITALIANS & HYBRIDS**, All in fine condition, Jones' Hive, 12 Frames, delivered on board cars in one lot at \$9.00 per colony. Single colonies in this lot gave a record of 52 pounds of honey in seven days in 1884.

M. B. HOLMES, Delta, Ont.

NORTH SHADE APIARY.

ITALIAN BEES. Full colonies in the L. or the Gal-lup hives. Nuclei, Queens, and bees by the pound for the season. Price Lists Free. C. H. TOWNSEND,
Almo, Kal. Co., Mich.

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 HIVES AND SECTIONS

New Shop and New Machinery.

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.

G. B. LEWIS & CO.,
Watertown, Wisconsin

QUEENS! QUEENS!!

Untested Italians Queens, raised from pure mother Ad. \$1.00. Tested, \$1.75. I will guarantee satisfaction.

A. B. JOHNSON,
Elizabethtown, Bladen Co., N.C.

WARRANTED ITALIAN QUEENS

No Cyprian or Syrian bees ever introduced into this locality, one Queen in June \$1.25, six for \$6. After July 1st, six for \$5. Send for 45 page illustrated Catalogue, describing everything needed by Bee-Keepers.

Address, J. B. MASON,
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BEES FOR SALE. Will sell thirty good strong hive. Twelve frames in each colony. Price \$9 each. Liberal discount to anyone taking a number. Colonies with eight frames at reduced rates.

ALPINE MCGREGOR,
Inglewood, P. Q.

W. E. CLARK, SUCCESSOR TO L. C. ROOT.

Dealer in all kinds of **Apiarian Supplies**, the Quinby Smoker—the best made—a specialty. The Quinby Hives made and sold finished and in the flat. Also all other kinds of hives. The Vandervort Foundation kept in stock, both wired and light. Send for illustrated price list, free.

ORISKANY, N.Y.

2-3m.

Garwood's Reversible Frame Device

Will fit any frame, is simple and cheap; anyone can make it. No nails or screws required to fasten it to the frame. Send ten cents for photograph with instructions, or 25 cents for a model. Friend Root turned this down as "too much machinery; but quite ingenious." You will smile.

C. GARWOOD,
Box 858, Baltimore, Md.

FLAT-BOTTOM COMB FOUNDATION,

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

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SOLE MANUFACTURERS,

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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.,
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- 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 1883. We guarantee every inch of our Foundation equal to sample in every respect.

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

1-6m.

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TO ALL that are interested in Bees and Honey, send for our Free and Illustrated Catalogue of Apiarian Supplies. Address

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1-6m.

IF YOU WISH TO TRY

The **Heddon Section Case** adapted to the Simplicity hive, don't fail to send for my circular, as it will tell you how to get Samples of them free.

D. S. HALL, South Cabot, Vt.

The BEE-KEEPERS' HANDY BOOK

A work of over 300 pages and nearly 100 fine illustrations, written by a practical bee-keeper of twenty-seven years' experience. This work contains more real practical information about bees and their management than any work extant. Send for particulars. Price by mail, bound in cloth, \$1.50. Address,

HENRY ALLEY,
Wenham, 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,

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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:

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|----------------|---------|
| 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. 30, which seems to be the number best suited for wiring 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 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. 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. 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, for 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 Fertilised 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 "HOLYLANDS.")

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.

Ten Per Cent. Reduction.

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Dear Sir,—Received sections (14,000) yesterday. They are all O.K. Finer even than last year.
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Dear Sir—Of those 61 Falcon Chaff Hives I bought of you 58 had full colonies and nuclei, all have wintered finely; that speaks well for the hive and my mode of packing.
E. L. Westcott, Fair Haven, Vt.
April 5th, 1885.

I manufacture a full line of **Bee-Keepers' Supplies** Send for my illustrated price list for 1885, free.
W. T. Falconer, Jamestown, N.Y.

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Will pay 40 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

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Send for my Illustrated Catalogue of Italian Bees and Queens, Campbell's Improved Honey Extractor, Wax Extractor, Bee Hives, Bee Smokers, Comb Foundation, Section Boxes, Honey Knives, Honey Cans, Labels and all useful Implements for the Apiary.

D. P. CAMPBELL,
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OR

MANUAL OF THE APIARY.

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