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VOL. III, NO. 30

1887

OCTOBER 19

PUBLISHED EXCLUSIVELY IN THE INTERESTS OF THE HONEY PRODUCER

THE CANADIAN



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VOL. III. No. 30 BEETON, ONT., OCT. 19, 1887. WHOLE No. 134

EDITORIAL.

FOUL BROOD.

SPEAKING of foul brood in their own apiary *Gleanings* goes on to say:—"At the present time of writing, September 27th, we think we have the upper hand of foul brood. Ever since we began using carbolic acid the disease has spread into no other new colonies, but we find it impossible to wipe out the disease entirely from the hives under treatment. From my present knowledge, phenol seems to be a success as an antiseptic, but as an eradicator where foul brood actually exists, so far it is apparently a failure. From occasional reports in foreign journals, and now and then from letters which pass my eyes, my impressions as above stated seem to be verified. I say impressions because I cannot think it safe yet to dignify them as facts indisputable. At the outset I said we had the upper hand of foul brood. How, then, did we become master of the situation? As the modification of the Jones' plan cured the disease, but did not prevent it from spreading in other colonies, and as carbolic acid apparently failed to wipe out the former infection, but was a good antiseptic, we combined our modification of the Jones' plan with the treatment by acids. The modus operandi which seems to have cleaned foul brood from the apiary is this: After opening an infected hive we spray the bees

thoroughly with a solution of carbolic acid, by means of our large atomizer, the solution being one part acid and five hundred parts water. The old hive is removed from its stand and a clean one is substituted. The bees are then all shaken into the new hive and given frames of foundation. The diseased chaff hive is last of all taken away and boiled in a manner which will be described in a future issue. Thus we not only cure the disease in the colonies but have prevented its spreading into other hives. Most of the hives in our apiary have more or less brood. If the disease were present in any of the hives, it would have, in all probability, shown itself ere this."

THE HONEY SEASON IN SCOTLAND AND ENGLAND.

The *Beekeepers' Record* for October contains a report of the late season's yield in Scotland, England and Wales, and America as far as the latter could be obtained:

In England and Wales it may be said that the season has been a good one, not first rate, but fairly up to the average. Everywhere the same complaint is made of its short duration and the heavy loss resulting from want of rain in June, nevertheless had prices for honey been so high as a few years ago not many would have occasion to complain. On this point we cannot omit printing a pithy extract from the characteristic report from a well-known and successful beekeeper in the south of England, who says: "What we want more than averages is better

prices and a statement in issues of both the *British Bee Journal* and *Record* of market prices of both foreign and British honey in order that sellers may have some guide as to prices. The whole year's sales of honey do not equal one month's imports, so that there must be a demand for the article in some parts and in some trades. I believe there is still a good opening for honey drinks, both alcoholic and temperance." Let our correspondent say that the crop in America is only returning about a quarter this year.

The main things to be gathered from the reports are: "That the north has fared better than the south and that honey this year is of an unusually good quality. Then again how strongly Scotland comes out in its general record. No part of Britain can compare this season with that favored portion of the United Kingdom.

WHAT PROPOLIS IS.

G. A. Stockwell says, in the *N. E. Farmer*: The word propolis is pure Greek, from *pro* for, or in behalf of, *palis*, city. It comes to mean a defense, a protection. That is what it is to the bees, a means of defence in winter; in fact, at all times. The bees defend themselves with propolis, stopping all openings, making the hive tight, even water-tight with it. During the summer a bottom board of a hive was pierced in several places by wood burrowers, but every place was stopped by propolis. Bees will close with propolis a hole an inch in diameter. When cool weather comes, the bees cannot mould this propolis to their needs; therefore, what is done to keep through the winter should be done before the propolis season closes; the bee-keeper should know before this time comes that his bees have stores enough for the winter. To break open the brood-nest in November may be fatal to the bees, or it may not. It is safe to consider it fatal and not do it or have occasion to do it.

* * *

DOUBLE IMPROVED CANADIAN FEEDER.

We observe that Messrs Neighbor & Son have out an invention which they call the improved Canadian feeder. The principle is the same as a Canadian feeder which we make and which was exhibited at the Colonial and Indian exhibition last year. The only difference that we can see is that they have a trough at each end of the feeder in which to pour the syrup. Since that time we

have made a great improvement on these feeders. This feeder is arranged so that the floats similar to the one described on page 591 of the *BEE JOURNAL* of last week, are placed in it one on either side of the entrance in the centre up through which the bees pass. The inside partition of the feeder, instead of wood, as formerly, now consists of pieces of perforated metal which shove down in sawcuts and prevent the loss of bees by drowning when the stores need replenishing. The cover of the feeder is shoved forward sufficiently to allow of pouring in the syrup which finds its level throughout the where feeder through the perforations. The floats are held in position by strips of wood $\frac{3}{4}$ of an inch square which are a little longer than the width of the case and fasten into slots on the sides. The entrance for the bees through the centre is made double bee-space so that a bee-keeper who could feed to advantage in the small feeder may by cutting these feeders directly in two make two distinct feeders by simply using two extra side pieces. Of course the bee entrance would then be at the side of the feeder instead of in the centre. This arrangement very much facilitates the cleaning of feeders after use and the shaking out of the bees where a few feeders have to do duty for a large number of hives. The double feeder holds about twelve pounds of syrup and it has taken a great deal of praise wherever it has been exhibited and our sales in feeders are very much increased.

OUR OWN APIARY.

USING DRAIN TILES AS LEGS FOR HIVE STANDS TO KEEP ANTS OUT OF HIVES.

HERE seems to be considerable diversity of opinion in reference to hive stands. There are localities in the Southern States and other parts where ants are very bothersome, and we have frequent reports of bees being injured by them. Some people suggest placing hives on little stands with four legs, the legs placed in water. In dry weather this water would require to be renewed twice a day. We think that taking a drain tile, where they could be procured, with say an inch hole in the centre, dipping them in coal

tar and using them for legs to the bee stand would be a sure preventive. The way to support them is as follows:—Take wooden pegs the size of the hole in the tile. Drive them in the ground until they do not project quite as far out as the tile is long; then drop your tiles over them. This stick prevents them from tipping over and makes a very firm stand. Coal oil, or surface oil, (if they are dipped in it) will answer as well as coal tar. This would prevent cock-roaches, ants, spiders or any vermin from bothering. The tile absorbs and retains the offensive odor for a long time and would only require dipping in the oil or tar once or twice in the season. The hive may be raised and the legs lifted off the sticks and dipped and returned in a moment whenever desired.

WHY DIVISION BOARDS DO NOT RUN TO THE BOTTOM OF HIVE.

Several persons wish to know why we do not make our division boards run to the bottom of the hive, while they fit tightly against the side. The division board should not come lower than the bottoms of the frames, so that the bees can pass under it to take honey out from behind when partially filled combs are set in. It is very convenient to feed behind the division board when one has no feeders, and also for strong colonies. If the division board goes to the bottom it is almost impossible to adjust it without killing bees. Those on the sides of the hives may be shoved down but the difficulty is to keep them out from under the bottom, and in strong colonies we can adjust twenty-five division boards in less time than a person who is used to it can adjust one that goes right down, all that is to be done is to slide it in place as quickly as a frame and the bee-space under prevents mashing. Even though they are crowded out from under it they soon run back and the use of these becomes a pleasure. No valid objection can be made to the opening under the board. There are so many advantages in its favor that we use them exclusively. We have had spaces of different widths, but we prefer the half inch because the sides of beehives are liable to shrink in time and become slightly shallower even though the timber was apparently dry when they

were made. This shrinkage causes the division board to come nearer the bottom and if bee space only is left a little shrinkage makes them too close and bees are killed, besides there may be bees on the bottom of the division board and also on the bottom of the hive. Any one who will use division boards as above we think will be pleased with them.

HOW LONG BEES WILL LIVE WHEN IN PROPER CONFINEMENT WITH RIGHT TEMPERATURE, ON THE FULL OF THEIR SACS ONLY.

Some time ago we prepared some more bees for trial to see how long they would live on one meal, but as the weather became cold the bees turned quite cross and as soon as the hive was smoked they apparently refused to fill their sacs with honey. We then put them in a box of about 3000 cubic inches inside measurement. They clustered in the centre of it and hung down like an ordinary swarm clustered on a limb. The front part of the box was covered with wire cloth so that they had all the air that was necessary and perhaps even more than they required. They were kept in a temperature from 45° to 50°, and we believe that this temperature, from this experiment is too warm with as much ventilation as we gave them. After being eighteen full days in this condition, on the morning of the nineteenth we found them weakening and some of them not able to hold on to the cluster. Now, we feel satisfied that they had too much air and if they had been in a smaller box where they could have clustered more easily they would not have consumed their stores so quickly. Others that we gave more ventilation to and which were more exposed and had less food in their sacs when they were put in the cluster required taking out in a shorter time. If we knew the right temperature to place them in and the right kind of a box or repository and if we could get them to cluster in a way that each would not have to support the weight of another we believe they could be kept for a very long time. By hanging in such a cluster it seems to us so much less exertion would be required on their part that the consumption of food would be much smaller and

they might remain in a more dormant state. If their sacs were filled with honey and their stomachs also, why might they not be kept in just that particular state that would require no consumption of food to keep up the animal heat, and as they had no muscular exertion to perform in supporting those in the cluster, but hang there, as it were, asleep—if we might be allowed to use the term—much better results ought to be secured. Who among us will be able to invent a machine or repository that would work automatically to keep the desired temperature stationary. There is no longer any doubt in our minds that when a colony of bees only consumes a couple of pounds of food during the winter they must lay in a semi-dormant state much of the time, or "hibernate" in the sense that friend Clarke puts it, because two or three pounds of stores would scarcely fill the sacs of an ordinary colony of bees, yet it is not an uncommon thing to have them wintered on even less than two pounds. Now, this small consumption of stores does not occur in out door wintering but in either cellar or special repository, or if out-door wintering, then protected from the outside temperature by packing. Those with cellars or repositories winter on about half the stores that are usually consumed outside. Can we not further improve those repositories or cellars? The same colony that will winter out-doors on twenty pounds of stores will winter in-doors on ten, and frequently be in better condition. Now, it appears that the quantity of food that they consume is not the essential that keeps them in the best condition, but that temperature and surroundings have more to do with it. In fact we invariably find the bees that consume the most food come out in the poorest condition, and those which have consumed the least come out in the best condition. We have frequently set colonies out in our apiaries in spring, even when the days were quite warm that did not attempt to fly even after having been out for perhaps an hour. We have sometimes raised the lids off the hives supposing they were dead, and found them clustered between the combs scarcely making a move, and when we went to lit a comb out the bees appeared to be packed so tightly together that

it seemed almost like pulling them limb from limb to rouse them. We would jar the hive and allow the sun to shine in on them, but they would seemingly take a long time to wake up. Now, we have found these colonies invariably do better than those that had been more lively and consumed more stores. They never spring dwindle and the old bees do not die off nearly so quickly in spring. In fact, they live nearly as long again and seem to work with more vigor, care for more brood and are the first to swarm. We should like to hear Prof. Cook, or any other, who has given the mattersome study, give us their opinion. There cannot be much harm in giving it due consideration at least.

We caught bees in a fly trap made of wire where they had an opportunity to fly around and try to get out. They worried themselves to death in a very short time in some instances. We have known them to worry themselves so that they would die in less than two hours when flying on a window; at other times they would live much longer. If they are excited from excessive labor they will die in two hours, but by being kept quiet they will live three weeks on one meal. May we not reasonably expect better results when we fully understand their requirements?

THE "RICH" BEE SUIT.

READERS of the CANADIAN BEE JOURNAL will remember our having given an account of this matter sometime since. It has only just come up before Judge Boardman, of Ithaca, for hearing. Mr. John McKeon, of Dryden, N. Y., supplies us with the following information taken from the dailies where the suit was tried:

DELHI, N. Y., Oct. 6.—What is known as the "bee suit," between S. W. Rich, defendant, and John M. Olmstead, plaintiff, both of Hobart, Delaware county, is now being tried in the Delaware county court here. The suit is of general interest. In the spring of 1886 Olmstead ordered Rich to remove 40 skips, Olmstead asserting that the bees were a nuisance. He said if Rich did not remove them he would make him do so. Rich has about 300 skips of bees, fifty in a place. He is a member of the National Bee Keepers' Association which has headquarters at Chicago. The Association is backing Rich, and if he is beaten in the Delaware county court the case

will be carried to a higher court. The suit is before Judge Boardman, of Ithaca. The Judge says he has never had a like suit before. Men interested in bees and honey from several states are in attendance.

DELHI, N. Y., Oct. 7.—The Hobart bee suit has been decided in favor of the plaintiff with six cents damages. The case will be carried to a higher court.

Mr. McKeon adds as a postscript that the plaintiff has sued for \$1,500 and the removal of the bees. We find in the last report of the National Bee Keepers' Association that the general manager says:—

S. W. Rich, of Hobart, N. Y., was sued by a jealous, disagreeable neighbor for \$1,500 and compelled him to remove his apiary outside of the city limits. This suit was defended by the union and is not decided yet.

The probabilities are now as stated in the above extracts, that the case will be carried to a higher court.

THE HONEY EXHIBIT.

AT TORONTO, AS SEEN BY AN INDEPENDENT AND UNBIASSED VISITOR.

THE following article we copy from the *Rural Canadian*. It is written by Rev. W. F. Clarke, who is the editor of the apianian department in that journal and it may be looked upon as an unbiased view of the exhibits as they were seen by visitors.

"This department of 'Canada's Greatest Fair' was located the present year in the southern half of the dairy building, an arrangement which gave ample accommodation inside, but allowed no exterior space for hives, tents, clamps and other bulky fixtures. The honey house used heretofore was much too straight, both for the exhibit and the visitors who wished to see it. Now that the association is flush in funds, it would be well to erect a building specially for the accommodation of honey-producers and dealers in apianian supplies.

It is well known that the present season has been an unfavorable one for the interests of bee-keepers. A hard winter was followed by a dry, hot summer, during which the honey flora bloomed but sparingly, and was very deficient in liquid sweetness. Consequently the crop of honey is short, so much so, that some who have been prominent exhibitors heretofore have not a pound of honey to sell or to display to the eyes of an admiring public. Still, it is

only by the conspicuous absence of noted exhibitors that any impression would be gathered that the season of 1887 has been a bad one for honey. There seemed to be abundance of it in jars and cans of all sorts and sizes; also, in sections and section-cases of various dimensions and shapes. The quality of this year's honey is very fine. It is unusually thick and rich. Sometimes there is complaint of honey being thin and watery. This is apt to be its character in a dropping summer. However deficient in quantity, it is A 1 in quality the present year. The samples competing for prizes were so uniformly good as greatly to puzzle the judges.

The display of comb honey in sections was particularly fine. It would seem that the manufacture of sections has been carried to such a pitch of excellence as to leave nothing to be desired by way of further improvement. The contrast between the first rough and dark-coloured sections that were put on the market and the beautifully smooth and white sections now made of poplar and bass-wood is as great as could well be imagined. We were formerly dependent on American manufacturers for our sections, but they are now made by Canadian manufacturers in a style quite equal to the very best samples that can be shown on the other side of the lines. The same may be said of other apianian requisites. All that is needed in the prosecution of practical bee-keeping can now be obtained home-made, at cheaper prices than those which were formerly imported from the United States. The samples of hives, extractors, bee-smokers, comb foundation and other bee-keeping requisites exhibited at the Toronto Industrial proved that a complete equipment for a first-class apiary can be had by all engaged in bee-keeping, or proposing to go into it, at their very doors.

Large quantities of honey were sold in the course of the exhibition. In addition to the supply brought for show purposes, orders were taken for future delivery, at good prices. Bee-keepers will not have to complain of a slow or a low market the present year, and perhaps the demand, whetted by scarcity, will be all the keener in years to come than it would have been under the influence of a continued glut. It will be well for all whom it may concern to take notice that hereafter the cutting up of honey for sale is to be prohibited at the Toronto Industrial, as it ought to be at all exhibitions. This practice is messy and slovenly, attracts the bees of the neighborhood in large multitudes, making visitors nervous and fearful of being stung; and though many pounds of honey are sold by means of it, there is room to question if the greatest

good to the greatest number is secured by it. At any rate, the fiat has gone forth, and such bee-keepers as want to sell five cents' worth of comb honey at the Toronto Industrial hereafter will have to get their bees to fill quarter-pound sections.

Several novelties in the way of apiarian fixtures were on exhibition. Among them was one which had been previously advertised as a "three-sided hive," but which proved to have, like hives in general, four sides, one being made to slip out in order to give access to the frames of comb. There is nothing new in principle here. The Falcon and other hives have this feature. Some parts of this "three-sided hive" are so like the new Heddon that the maker may reasonably expect to be dealt with for infringement. Among the novelties well worthy of notice is a new method of fastening comb foundation in sections, by means of an ingenious little machine, in which heat is applied to the section and pressure to the comb foundation. Confectionery of various kinds, prepared with honey, made an attractive display, but it is very doubtful if honey can be economically substituted for sugar in such preparations. Properly speaking, honey is itself a confection. It should not be brought into competition with sugar as a sweetener, being itself a perfect sweetmeat from nature's pantry.

On the whole, the exhibit of honey and apiarian supplies at the recent Toronto Industrial proved conclusively that bee-keeping is abreast with other lines of productive business, both in methods and results. Visitors from abroad, competent to judge, did not hesitate to pronounce the opinion that no country in the world can surpass Canada, either in the excellence of its honey or the skillfulness of management on the part of its bee-keepers."

FOR THE CANADIAN BEE JOURNAL.

BEE-KEEPING IN SCOTLAND.

I WAS sorry indeed that when Friend Jones visited old Scotland last year we were all ice bound so that he must have gone with simply no idea at all of rural Scotland and with, perhaps, only a poor idea of its bee-keepers. We assure him however that should he ever again visit us, say during August, we shall show him something to wonder at. The glory of Scotland in the view of many besides its bee-keepers is the immensity of its tracts of

BONNY, BLOOMING, PURPLE HEATHER.

Few parts of the whole country are without views of it in some direction, while whole districts, scores of miles across, show to the casual eye nothing else. The plant which is a dwarf

wiry shrub looks sober enough the greater part of the year, but when in August and September it puts on its purple robe the landscape is transformed as if by magic. The green of the valleys, woods and cultivated patches meets with endless rolling prairies (moors we call them) and billowy hills of a uniform purple shaded and diversified only by the varying slope and by the play of sunlight. At this season a handful of heather is a posie of bloom. The flowers develop themselves along the shoots of the season's growth and are individually small, not larger than a moderate pin head before opening, but as thick as they can be along the three inches or so of the spike. The individual blooms open out in succession for about four weeks and during this time yield in fair weather both honey and pollen.

SCOTCH HEATHER HONEY

is throughout these islands regarded as the richest of all honeys and commands the highest price and a ready market. Its flavor we cannot describe, perhaps D. A., or Mrs. Jones can, its color is in quantity like dark sherry, and the wax built while the bees work on it is of peculiar whiteness and delicacy, which by contrast enhances the appearance of a slab of heather honey comb to a great degree. Friend McKnight (being no Scotchman) was naughty enough to hint at the Colonial Fete that only Scotchman cared for heather honey just as they do for a drop of the "real Glenlivet." But as a matter of fact we find the chief market for it among the pure blood English, who to my certain knowledge are often fleeced to the amount of three shillings a pound for it. Half that amount is the best we can generally get however, but it always rules at least 50 per cent above clover honey.

SCOTTISH BEE-KEEPING

naturally enough takes these premises into account. In many places there is of course no other source of surplus. But from the lowlands rich harvests of clover honey are also secured and thereafter the hives are very generally carried "to the heather." The clover season ends as a rule with July and there is an interval of ten days or so before the heather blooms. In highland districts however the double harvests where both exist are in immediate succession, so that it is possible for a bee-keeper here to get three harvests, viz: the low country clover, the mountain clover and the heather.

THE MIGRATION SYSTEM

is thus largely practiced. As soon as the clover season ends we in the lowlands begin to pack up our stocks for travelling. We remove all finished surplus, pin our frames to keep them from shaking, pile on one or more tiers of supers, cover all with scrim cloth, fasten wire cloth on

the doorway and secure all parts of the hive together by laths tacked on. The hives are then ready for the rough jostling they must endure on the stony hill roads. They are generally removed at night or in the early morning so as to get to their destination before the sun is strong. The friendly shelter of a shepherd's garden or game-keeper's fence is generally chosen for a location, but frequently the hives are located right amidst the heather without a guard of any kind. A small sum per hive is generally paid to the person in whose holding they are left as rent and to ensure a little interest in their protection. The swarming season is already past so we have no alarm on that score, our only care being to visit the hives once or twice to remove honey and add sections if required. Sometimes the whole gathering is left till the time for removal homewards when the same precautions against breaking down are employed.

THE RESULTS OF THE SYSTEM

during such a season as we have just had are an average addition to our surplus of over 40 lbs. per stock. No stock removed to the hills gave me less than 20 lbs., and the best gave me 61 lbs., mostly gathered within a fortnight. In addition we have the advantage of a later hatch of brood and a brood nest splendidly furnished with stores for the winter. I may mention that the stock from which the above 61 lbs. was taken had previously given me 143 lbs. of extracted clover honey—total 204 lbs. Other stocks did nearly as well and reports from various parts of Scotland pretty nearly coincide.

THERE IS AN ART IN IT

which all who work for a late harvest should attend to. That is, to get right into the late harvest with "full blast" stocks. We have had to learn this. When we used to work for nicely finished comb honey we found the necessary crowding of the brood nest had the effect of leaving us with weakened stocks before the end of July. But now that we know how to work the tiering system for extracted honey we have just splendid stocks of bees at heather time

AND THERE IS FUN IN IT.

It is a great night in the village when the bees are going to the moors. Carts and wagons are being hired and loaded on the joint stock principle. The various owners of the bees accompany the loads perhaps all night to their destination. There is no end of humor to while away the time, or if the travellers should get drowsy they frequently get a sharp awakening through the tail ends of an exploring party of bees that have just escaped from some hive that has slipped its moorings. Seldom is there a promiscuous band of pilgrim bee-men with their stocks

without something unforeseen happening, a hive breaking, a smotheration, a capsizing or a runaway. Then the fun of letting the bees loose after reaching the moor when from some dozens of doorways the imprisoned myriads rush forth like schoolboys at vacation, or more often like hornets in quest of an enemy, the stinging, the howling, the stampede of men and horses and donkeys!!! Of course all this is bad management, we never do the like or allow it. We know the virtues of carbolic acid and we know how to use it.

THE EXTRACTOR IS OF NO USE

for heather honey. It jellies in the comb after a few days and no amount of centrifugal force will dislodge it, and so there is much kitchen work in getting heather honey fit for market where only the skep system is in vogue. The mashing up of the comb, warming them slightly, and then squeezing them in jelly bags. We have improved on this by inventing the

RAITT HONEY PRESS

which removes the honey free from pollen or any contamination, not even from a sweaty hand. We prefer however to get all surplus heather honey stored in sections or straw supers. It fetches the best price in the comb and then only has its fine aroma unimpaired.

WILLIAM RAITT.

Blairgowrie, Scotland.

From the Bee-keepers' guide.

LESSONS OF THE SEASON.

THE season of 1887 has been one of unparalleled drouths, bringing in its train a shortage of crops of all kinds. Bees have been as unprofitable as other kinds of stock which depends on the growth of plants for subsistence. In a journey of 150 miles through the country and seeing several large apiaries and making inquiries concerning others I found but few bee-keepers who made any honey. The villages where honey usually was kept were nearly all clear of honey, and that was not of the best quality.

We learn that those only who succeeded in a measure in limiting their increase of swarms made the most honey. Stocks casting no swarms gave most surplus. Those casting one swarm gave very little and those casting several gave none at all, besides second and third swarms made scarcely stores enough for winter. The flow of honey being stopped so suddenly breeding also ceased so that the fall pasturage though abundant yielded no surplus for want of bees to secure it. This proves that strong stocks are always the profitable ones and that continuous breeding through the season is necessary to take advantage of yield of honey late in the season.

A bare market and higher prices cannot fail to remind us of the anxiety we had last year as to the disposal of that crop. Had we been in less haste we might have enough of that crop left to fill up in a measure this year's shortage and have held up last year's prices to a paying basis. If honey is properly cured and stored it can safely be held one year, and in case the new crop is good the old crop could be disposed of first so that none need be more than one year old. By doing this the market would not be broken down as it was last year and so much time lost in building it up again as is now the case.

We have found too that where only one or two stocks of bees were kept that a fair average yield has been obtained and in a few instances the yield has been exceedingly large, thus proving not only the probability but the certainty of overstocking in such a season as this has been. Bees purely black have fared worse than the Italians and hybrids which proves the superiority of the latter races. When the drouth is universal and continuous but little can be done in the way of raising special crops for honey unless something can be found which will withstand drouth better than anything we have yet tried. Melilot, catnip and buckwheat have all failed alike this year. Extracting and feeding back for the purpose of keeping up breeding has been too burdensome to have found much favor with beekeepers in this locality. It might be made to pay however where the fall bloom could be relied on with perfect certainty. Some considerable honey dew has been gathered lately which may have a serious effect on wintering, otherwise I see no reason to apprehend great losses the next winter.

Orland, Indiana.

G. W. NEIBARDT.

From Gleanings.

A House-Apiary, and One that is Managed Successfully.

WITH a good deal of pleasure I had been contemplating a trip to the above apiary for some time, remembering a similar visit about two years ago. Blue-Point Apiary is owned by Mr. M. G. Young, of Brooklyn, N.Y., and is located at Highland, Ulster Co., N.Y., a beautiful village nestling among the hills that overlook the grand and beautiful river Hudson. To get to Highland from New York you have your choice of three routes, viz., West Shore, R.R., N.Y., Central R.R., and steamboat "Mary Powell." The latter was my choice, as I am passionately fond of sailing, and a brief respite from the dust and dirt of the city and its legion of railroads was a recreation of itself, and I appreciated it fully as I sat upon the deck and

drank in the delightful breeze that fanned our heated bodies, which were almost cooked by the long 96° -in-the-shade stretch of weather. But our bodies, being a good deal like the weather in our climate (very elastic), it did not take long to cool them off, and make us begin to feel a little uncomfortable the other way; however, this condition is easily remedied by simply walking inside the cabin, and accommodating yourself to a luxurious chair. This is just what your humble servant did, and spent the remainder of the steamboat part of the journey in admiring and studying human nature as it is phased among a promiscuous crowd travelling for pleasure on the Hudson River. I could write some very amusing notes of observation in this line, but it would be out of order in this article.

On taking a tour of observation now, I found we had gotten as far along as Newburgh; and being reminded by the inner man that it was time to attend to his wants, and that I yet had time before arriving at my get-off place to do so, I repaired to the lower deck, or cabin, where I found the required refreshments; and with an appetite made keen by the bracing mountain air, satisfied that inner man to the astonishment of my pocket-book.

Soon we arrived at Poughkeepsie, where I was to leave the steamboat and take (or let it take me) a small steam launch, or ferry-boat, and cross the river to Highland. Arriving at the dock, my good friend was awaiting me, and right glad I was to find him there; for the night was dark and the country strange, and his home some two miles from the river, necessitating a walk through the woods by path and road, up hill and down—mostly up; but following close to my friend Young, who seemed to be perfectly at home among these hills, we soon arrived at Blue-Point Apiary, the writer about "played out," and ready to seek the welcome cot, where we were soon ensconced, and, listening to the monotonous music of the katydid, we soon slept the sleep of the weary, awakening only when the light of the coming day shone into my room, and the sound of nature's orchestra falling upon my ears. I was soon into my clothes, and out enjoying the loveliness of the country, as only a city clerk can appreciate to the full.

After breakfast, a visit to my friend's pets, the bees, was in order. Mr. Y. is thoroughly a house-apist. He hasn't a colony outside of the house. He has two bee-houses, situated about half a mile apart, one accommodating about thirty, the other twenty. The hives are arranged inside in two rows, one on the floor, and the other about four feet above, and occupying two sides of the house, viz., south and east.

Experience has taught him that they do not winter well facing the north. The plan of the bee house is about as follows: Shaped as an L, say 20x14 feet; this gives him a room on the 14-ft side for a work room 8 feet square. The sides opposite the hives are used to store frames, boxes etc., and to hang up tools, etc., necessary for the apiarist. There is a skylight in the centre of the roof arranged with a wire screen that can be turned over at will by pulling a string. The object of this is twofold. First, it catches all the bees that fly off while manipulating the combs; it also prevents robbers from coming in and holds them till the manipulator is through with that hive, when a pull of the string turns them all out doors.

Another advantage and a big one for Mr. Y., is in having his bees all in a bee-house. He can go away and leave them locked up and nothing can meddle with them. He uses a box 3x4 inches with a full sized sheet of foundation (flat bottom) fastening it with a Mallory fastener. He markets the honey himself, i. e., he seeks a market among grocers in Brooklyn who pay him a good price, appreciating the neat box and clean tidy-looking crate that holds them. Mr. Y. is very successful in wintering his bees just as they stand in the bee-house, simply packing them with chaff or chaff cushions allowing the entrances to remain open. He has a plan of ventilating the hive which I will not explain here as he may not wish me to do so. Mr. Y. has met the foul brood problem to his sorrow, but he came off a conqueror, I think he said by the Muth system. He could give you some rich experience in that line if called upon. He has now a very handsome strain of bees whose qualities for working and gentleness are unsurpassed. Mr. Y. enjoys this little side business very much, as does his wife also, who helps him in a good part of the work. His vocation in Brooklyn being a school teacher he has one day of every week at his disposal as well as a long vacation in summer, at the beginning of which he moves at once with his family to his Highland apiary and gathers new strength as well as new honey and ducats, to spend in the winter campaign for souls, for I forgot to tell you that Mr. Y. is the leader of a large mission school, also in Brooklyn. Like the bees he loves, he is a worker.

From Blue Point apiary I crossed the old Hudson again and sought the "Knickerbocker Bee Farm," located at Pine Plains, N. Y., an account of which I will give you later.

THEO. O. PEET.

Arlington, N. J., Sept. 7th, 1887.

Prairie Farmer.

BEES IN THE RED CLOVER.

H. W., Pierce Co., Wis., asks: "Is it a fact, if there were no bumble-bees we would have no clover seed?"

There are many plants in the economy of nature, dependent upon insects for the fertilization of their seed, and red clover is a striking example. The well-known flower, bleeding-heart (*Dicentra spectabilis*), bears no seed, being a native of North China, and its fertilising moth has never been introduced into this country.

It is claimed by some that Italian bees work upon red clover, and denied by others. I think that under certain conditions they do, as when the heads are very small by reason of drouth, these bees are able to reach the nectar.

The first crop of red clover, although the most luxuriant, yields very little seed, so little that it does not pay growers to thresh it. The reason for this is that there are so few bumble-bees at this season, as only the queen and a few workers winter over. But by the time the second crop blooms, there are plenty of workers to do the work assigned them. It appears to be their special mission to fertilise this clover, as they do not store sufficient honey to be of any use to mankind.

Waldo F. Brown, a prominent writer on agricultural topics, wrote last year to the *Philadelphia Press*, that he never before harvested such a large crop of clover seed, and before cutting, destroyed more bumble-bee's nests than he ever saw before on the same amount of ground. By so doing, it appears that he willingly killed "the goose that laid the golden egg."

It would be well for agriculturists to ascertain, before destroying insects, whether they are friends or foes to their interests. In Australia no clover seed was produced; and ascertaining the reason, bumble-bees were introduced, when it bore seed in abundance.

Red clover is a very useful plant, and during the severe drouth, when the blue-grass was dry and brown, I noticed the bunches of red clover among it growing luxuriantly. As these insects are absolutely necessary for the production of red clover seed, they should receive better treatment from agriculturists than heretofore, as it is a common practice to send out a man or boy, at certain seasons of the year, to destroy every nest that can be found, for fear they may sting the horses while fall plowing.

This may be necessary on land that is to be plowed in the fall, but where their nests are located in meadows, they could be shut in as easily as to destroy them, and let out after the crop is secured. The nest could be marked in

the meadows, and the grass cut away, and after sundown, when the bees had all entered, the holes could be securely closed, and kept so until the hay was secured, and then opened.

MRS. L. HARRISON.

Peoria, Ills.

Coleman's Rural World.

Twelve Proverbs for Bee-keepers.

1. The ways of bee-keeping are not all ways of pleasantness, nor are all the paths thereof the paths of peace.

2. Man is to earn his bread by the sweat of his face, and there is no exception made in favor of the bee-keeper.

3. To work successfully a man must work wisely. To work wisely with bees, one must know their nature and habits; these can be learned only by careful study and observation.

4. We live in progressive times, and the true bee-keeper must be progressive.

5. In bee-keeping, as in other things, the diligent are crowned with success.

6. The obstacles in the way of successful bee-culture are ignorance, carelessness, being too eager to increase the number of colonies, and cold winters.

7. A fair knowledge of bees, faithful attention to the apiary, and a thorough and timely preparation for the honey-flow, swarming and wintering, will make any man or woman a successful bee-keeper.

8. A tyrannical Pharaoh demanded of his workers the "full tale of bricks," but furnished them no straw. Do not demand of your little workers "the full tale" in pounds of honey, when there is none in the fields, or when you reside in a region poor in honey-yielding plants.

9. Carefully lay up your honey crop where thieves (especially robber bees) cannot break in and steal, and your empty combs where moths-worms will not destroy them.

10. Profitable bee-keeping greatly depends upon a gathering up of the fragments, that nothing be lost. Fragments of time can be used in caring for bees; fragments of lumber in making hives and frames; fragments of combs for wax; and every drop of honey is useful: even though mixed with dirt, it can be fed to needy colonies.

11. Some bee-keepers seek their profits in rearing bees or queens to sell; but remember that the true aim of bee-keeping is to supply the market with delicious honey.

12. Live not for self. Make your knowledge profitable to others seeking to learn bee-keeping, that the coming generation of bee-keepers may excel the present, increasing in numbers and in

knowledge, until every pound of honey secreted by the unnumbered flowers of our land is gathered.

SUNDRY SELECTIONS.

THE HONEY SHOW AT THE WESTERN FAIR.

The exhibit of bees, honey, and apiarian supplies at the Western Fair this year was not as large as usual but was good, what there was of it, (like the old lady's butter) although two of the largest exhibitors of last year did not appear this year, still we had a very creditable display. Mr. David Chalmers, of Poole, Ont., had on exhibition a new idea in a three-sided hive which is invertable and the working quite different from the usual styles. Mr. Holtermann, representing E. L. Goold & Co., showed full lines in supplies Messrs. E. Robinson, of London South, Wm. Coleman, Devizes, and J. W. Whealey, Devizes, showed extracted and comb honey. R. H. Smith, Ealing, Ont., showed bees, honey and supplies. Mrs. Rudd, of London City, had a very tasty display of honey and supplies. Nearly all the exhibitors had "honey on a stick" for sale and during the week over 1500 lbs. was sold in that way.—COM.

FEEDING AND WEIGHING.

H. A. B.—This is my first season at bee-keeping, and feeling a critical time has arrived and found me in a position to become rather a bee-loser than keeper. In order to reverse this order and become keeper instead of loser I take advantage of your kind offer to answer questions, and propound the following: (1.) How many pounds of honey does it require to winter a colony and how many pounds will there be in a Langstroth frame that is well filled. (I have no scales so will have to guess.) (2.) How do you keep the bees off the sides of the hive while you put in the division boards for winter. I tried it one day but the bees stuck to the sides so that it would have killed a great number had I put them in. 3. In feeding what proportions of sugar and water is best, and do you give it cold or warm, morning, evening or any time. Hamilton.

You should have from twenty-five to thirty pounds of food in the colony. We could not say how much there would be in a Langstroth frame. Have known them to have five pounds in a frame, at other times not one. It will not be difficult for you to borrow a little pair of platform scales from some grocer living near, to weigh your hive. Guess work in feeding is not likely to prove successful. If you examine them and find that they have very little honey you had better get fifteen or twenty pounds of granulated sugar and for every pound of sugar add about one-half of a pound of water, and boil it for five minutes. As soon as the syrup gets cool enough feed them. You will see by referring

to the back numbers of the JOURNAL how they are fed. We never try to keep them off the sides of the hive as the division board fits tight enough so the bees can get between it and the sides of hives. The bees are shoved down out of the way as you press the division boards down. Ours do not go to the bottom either and it matters not how full of bees the hive is it can be adjusted at any time without injuring them.

WORKING THE HEDDON BROOD CASE FOR COMB HONEY.

ROBERT KENNEDY, SR. — In manipulating the Heddon hive, should both brood sections be on when working for comb honey? If not, should the hive and bees be divided on the approach of honey flow or white clover?

This all depends on the way you intend managing your bees. If you want to secure the largest amount of comb honey and do not care to increase, you should lift the top half of the brood chamber off, place on the queen excluder, then put on your supers, then place the half brood chamber that you lifted off on the top of the sections. By this means you have your sections in the centre between the upper and lower half of brood chamber. This causes the bees to work more quickly and more rapidly in the sections and they will fill many more sections in this way. As the brood hatches out of the top of brood chamber, if lifted up, they will fill and seal it with honey, which gives you wintering stores or it may be removed and placed under the lower brood chamber which causes the bees to remove the honey in it and place it in the sections also. By proper manipulation of this system every pound of honey can be got in the sections if desired, but if you wish increase they may be divided just before they swarm. They may be allowed to swarm, when sections may be placed on same as if divided and fair yields secured.

ARTIFICIAL INCREASE WITH THE HEDDON BROOD CASES.

Do I understand Mr. Clarke right in his "Bird's-Eye View" when he says, take one half the brood nest or brood chamber and carry it to another stand, give it a queen and so increase your stock. Now, when should this division be made; which part take away, the upper or lower half; and how introduce the queen? Is it best to put the honey board between the two sections after shaking out bees from above, then take top half off, in a day or two the queen would be be-

low and doing it last of August? Please advise and oblige.

The half taken should contain the most brood and there also should be most of the young bees shaken off with it. The old stand would have all the honey gatherers and would, in favorable seasons, store a good surplus. A little smoke puffed into the brood chamber causes the queen to pass down below at once. It is not a good plan to either divide or allow swarming late in the season.

Convention Notices.

MICHIGAN STATE BEE-KEEPERS' ASSOCIATION.
—At East Saginaw, December 7th to 9th, 1887.
H. D. CUTTING, Sec., Clinton, Mich.

North American Bee-keepers' Society and the Northwestern Bee-keepers Society will meet in joint convention at the Commercial Hotel, cor. Lake and Dearborn streets, in Chicago, Ills., on Wednesday, Thursday and Friday, Nov. 16, 17 and 18, 1887. Arrangements have been made with the Hotel, for back room, one bed, two persons, \$1.75 per day, each; front room, \$2.00 per day each person. This date occurs during the second week of the Fat Stock Show, when excursion rates will be very low.

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Asst. Editor
and Business Manager.

BEETON, ONTARIO, OCTOBER 19, 1887.

BUSINESS DEPARTMENT.

We have more bees than we want to put into winter quarters and we propose offering them at exceedingly low prices to dispose of them. A great number of our colonies are in the new combination hives, and we are prepared to sell good full colonies for delivery at the present time at \$6.00 per colony, in lots of 5, \$5.75, in lots of 10, \$5.50. There will be in each hive seven frames (the hive full) of brood and bees and whatever honey will be necessary for the trip and some over. In the regular Jones hive with six and seven frames of brood and bees (balance of 12 empty combs) at the same price per colony. F. O. B. cars at Beeton station; terms, cash with order. We are also prepared to sell a limited number of colonies to good marks on time with satisfactory security. We have too great a pressure in our supply business to permit of our extending our own aparies, and rather than let that portion of our business get behind we prefer to give it the preference.

We can supply 250 envelopes and 250 note heads, each with your name and business neatly printed on the corner for one dollar. The paper is of good quality, the envelopes are in boxes of 250 and we pay the postage. At this writing we have executed nearly three hundred orders, and have in many cases been favored with repeat orders for friends. Cash should accompany order and copy be plainly written.

HONEY MARKETS.

BEETON.

EXTRACTED.—We are taking all that comes along in exchange for supplies at our catalogue rates, at the following prices F. O. B., Beeton: A No. 1, clover, linden or thistle, 9c.; mixed flavors, 7c.; buckwheat and darker grades, 5½c. When shipped to us in 60lb square tins, 30c. is allowed for package. No allowance for other packages.

COMB.—We will pay 16c. in supplies at catalogue prices per pound for No. 1 comb honey in 1lb sections, put up in crates of 6, 12 and 18. F. O. B. cars at Beeton.

For No. 2 we will pay 13c. same terms. We can take any quantity of either.

DETROIT HONEY MARKET.

Best White Comb Honey 16 to 18 cents. Beeswax, 23 cents.

M. H. HUNT.

PHILADELPHIA HONEY MARKET.

Fancy new white honey in good demand. Inquiry is for 1-lb sections, New white clover, 18 to 20c. Buckwheat, 14 to 15c.

PANCOAST & GRIFFITHS.

NEW YORK HONEY MARKET.

Our market for honey is opening up earlier than usual, and at higher prices. We quote as follows until further notice:—Fair White, one lb. sec's., 16 to 18c.; Fair White, two lb. sec's., 13 to 14c.; Fair to Good, 1 lb. sec's., 13 to 15c.; Fair to Good, two lb. sec's., 10 to 12c. White Clover extracted in kegs and bbls. 7 to 8c. Beeswax 21 to 22c.

McCAUL & HILDRETH BROS.

CINCINNATI HONEY MARKET.

The demand from manufacturers is very good of late for extracted Southern honey and fair for clover honey in small packages for table use. Our stock of Southern honey has been reduced considerably and we shall be in the market again this fall. There were few arrivals lately and prices may be quoted at 3 to 7 cents a pound on arrival, according to quality.

Comb honey has been sold out, perhaps, better than ever before at this time of the year; only remnants of dark honey being left over. Choice white comb honey would bring readily 15 cents a pound in the jobbing way. No arrivals of new comb honey reached our city yet that we know of.

Beeswax is in fair demand and brings 20 to 22 cents a pound for choice yellow on arrival.

CHAS. F. MUTH & SON.

PRICES CURRENT

BEESWAX

Beeton Oct. 19, 1887
We pay 30c in trade for good pure Beeswax, 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... 48c
over 50 lbs. 45c
Section " in sheets per pound..... 55c
Section Foundation cut to fit 3½x4½ and 4½x4½, per lb. 60c
Brood Foundation, starters, being wide enough for Frames but only, three to ten inches deep... 45c

EXCHANGE AND MART.

WANTED.—A few hundred one-pound sections comb honey. State price. R. B. GRAY, if
Pembroke, Ont.

SMOKERS.—We have 10 No. 1 smokers and 26 No. 2 smokers in stock, which we will sell cheap to clear them out. They have the old style inside spring, but are otherwise just as good as new ones. Price, No. 1, \$1. by mail, \$1.40; No 2, 75c., by mail \$1.00. The D. A. JONES CO., Ltd., Beeton, Ont.



7½ Cords of Beech have been sawed by one man in nine hours. Hundreds have sawed 5 and 6 cords daily. "Exactly" what every Farmer and Wood Chopper wants. First order from your vicinity secures the Agency. No Duty to pay, we manufacture in Canada. Write for Illustrated Catalogue sent FREE to all. Address FOLDING SAWING MACHINE CO., 303 to 311 S. Canal St., Chicago, Ill.

MUTH'S HONEY EXTRACTOR.

Perfection Cold Blast Smokers, Square Glass Honey Jars, etc. Send ten cents for "Practical Hints to Beekeepers." For circulars apply

CHAS. F. MUTH & SON.

Cor. Freeman & Central Avenues Cincinnati.

ESTABLISHED 1855.

BEESWAX HEADQUARTERS.

We have constantly on hand a large stock of Domestic and Imported Bees-wax in original shape, which we offer to manufacturers of Comb Foundation at lowest prices. We guarantee all our beeswax absolutely pure. Write to us for prices. Address,

R. ECKERMANN & WILL,
Beeswax Bleachers and Refiners. Syracuse, N. Y.

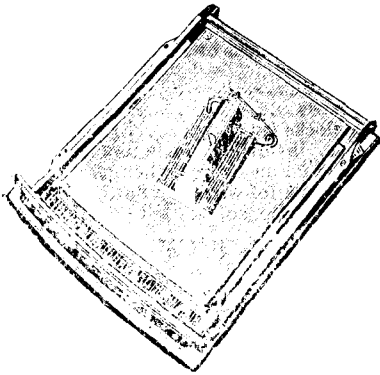
BEEES FOR SALE.

Having more bees than my winter quarters will admit, I will sell about 40 colonies very cheap. They are very strong and in good condition. Address

E. HEAL,
St. Thomas, Ont.

THE MITCHELL FRAME NAILER.

The "Mitchell" Frame Nailer is light, handy and cheap—anyone who has a few hundred frames to nail will find it advantageous to have one of them.



For Jones' Frame S. W. Hive.....\$1 25
 " " " Combination Hive..... 1 25
 " Langstroth Frame..... 1 50

THE D. A. JONES CO.

TESTED * QUEENS!

We have just run over our apiaries and find that we have yet 193 specially selected and tested queens, bred in July and August last year. They were selected from several thousand and we will guarantee every queen to give satisfaction. While they last we will let them go at only \$1.75 each, or \$1.50 each for six or more at a time. This is a rare chance to get queens at about half their value.

THE D. A. JONES Co., LD., BEETON.

OUR 60 LB. TINS.

We have already sold enough of these to hold a crop of over 100,000 lbs of honey. They are better made than ever, and are encased in our new style of wooden case. Have a large screw top, as well as a small one, and are thus excellent for granulated as well as liquid honey. The prices are:

Each.....\$ 0 50
 Per 10..... 4 80
 Per 25..... 1 35
 Per 100..... 4 50
 "Charcoal" tin used in these. As a rule "coke" tin is used.

THE D. A. JONES Co., LD., Beetou.

CANADIANS

Want to supply their wants at home as much as possible, but heretofore they have not been able to do so, at least for bees by the pound, frames of brood, and nuclei. We have decided to furnish them at the prices as found in the following table :

BEEES BY THE POUND.

	May	June	July	August	Sept.
Bees, per 1/2 pound	1.75	1.50	1.00	1.00	.90
" " pound	3.00	2.50	1.85	1.75	1.70
Frame of Brood	1.75	1.50	1.00	1.00	.90
2-frame nuclei..	4.00	3.50	3.00	2.75	2.50
3 " "	6.00	5.50	4.75	4.50	4.50

Frames of brood cannot be sent alone.

Queens are not included in above prices. Choose the kind you want and add enough to price found here to cover cost of queen.

Two frame nucleus consists of 1/2 pound bees, two frames partly filled with brood and honey, and a nucleus hive. If wanted in either "Jones" or "Combination" hive, add price made up, and deduct 40c. for nucleus hive.

Three frame nucleus, same as two-frame, with the addition of another half pound of bees, and another frame of brood, etc.

All prices here quoted are for frames that will fit the "Jones" or "Combination" hive.. You may have whichever style you desire. Be sure to specify when ordering.

The above must go by express.

QUEENS.

	Homebred	Untested	Tested	Selected	Virgins
May	2 00		2 50	3 00	
June	1 50	1 00	2 00	3 00	0 60
July	1 00	90	2 00	2 50	50
August	1 00	1 00	2 00	2 50	50
September	1 50	1 50	2 50	2 75	
October	2 00		2 50	3 00	

FULL COLONIES.

	Italian	Holy Land Crosses	Carrollian Crosses	Hybrids
May	\$9.00	\$10.00	\$11.00	\$8.50
June	8.00	9.00	10.00	7.50
July	7.50	8.00	9.00	7.00
August	6.50	8.00	9.00	6.50
September	6.50	7.00	8.00	6.00
October	7.00	8.00	9.00	6.50
November	8.00	8.00	9.00	8.00

The above prices are for up to four colonies ; five colonies up to nine, take off 3 per cent.; ten colonies and over, 5 per cent. Colonies as above will each have six to eight frames of brood, bees and honey, and good laying queen

The D. A. JONES Co., LD., Beetou.

TOOLS For BEE-KEEPERS

HAMMERS.

We shall hereafter keep in stock a full line of tools suitable for bee-keepers. For ordinary use, where a person has only a few hives, etc., to nail, we have an iron hammer (with adze eye) which we can send you at 15 cents.

Then in steel hammers we have three styles all with adze eyes, which we sell at 40c., 50c., and 60c. each.

Small hammers—steel face with adze eyes, just what are needed for frame nailing, etc., No. 55, 35c.; No. 52, 50c.

SCREW DRIVERS.

With good hardwood handles and of the best steel—nicely finished, round bits, in two kinds, No. 1, 5 inch bit, 18c.; No. 2, 6 inch bit, 20c.

TWO-FOOT SQUARES.

In iron squares we have two kinds—the first of these is marked down to one-eighth of an inch, and is marked on one side only, the price is, each, 20c.

The other style is marked on both sides down to one-sixteenth of an inch—price, each, 35c.

We have a splendid line in steel squares which we can furnish you at \$1.35. They are well finished and are usually sold in hardware stores at \$1.75.

TWO FOOT RULES.

A splendid line in rules we offer at, each, 18c. Then we have a nice box-wood rule at, each 25c.

HAND SAWS

Just at the present we have but one line in these—26 inch long—A. & S. Perry's make—usually sold at 75 cents we offer them for 55c.

PANEL SAWS.

These are what are often called small hand saws, and for the finer classes of the bee-keepers work are indispensable. We have started out with two lines in these. The 18 inch are of good steel (Shirley and Dietrich) and can be sold by us at 50c.

The 20-inch are finer steel—same make—that money.

PLANES.

Iron block planes, just the thing for dressing off hives, each, 75c.

Wooden smoothing planes—the best of the kind, 85c.

All the above goods are sold at prices 20 to 25 per cent. below the ordinary retail price, so that when ordering other goods you may just as well have a try you want as the cost of transportation will not be any greater. These will be included in the next revision of our price list.

THE D. A. JONES CO., LD.,
BEETON, ONT.

RAYS OF LIGHT.—A new publication devoted to Bee-keeping and Poultry-raising. A number of the leading, most practical and successful Bee and Poultry-Keepers have already been secured as regular contributors. Its principal aim will be to advance progressive ideas upon the various topics of modern scientific Bee-culture and Poultry-Raising. Subscription, 50 cents a year. Sample copy free.

J. J. MARTIN & CO.,
North Manchester, Indiana.

D. A. JONES, Pres. F. H. MACPHERSON, Sec-Treas.

The D. A. Jones Company, Ed.
BEETON, ONT.,

MANUFACTURERS OF AND DEALERS IN

APIARIAN * SUPPLIES.

Our Circular sent free on application.

PUBLISHERS

THE CANADIAN BEE JOURNAL

FINE BOOK & JOB PRINTERS.

Sample copies free on receipt of name and address. tt

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.

T. G. NEWMAN, & SON, Chicago, Ill.
C. F. MUTH, Cincinnati, O.
JAMES HEDDON, Dowagiac, Mich.
F. L. DOUGHERTY, Indianapolis, Ind.
CHAS. H. GREEN, Berlin, Wis.
CHAS. HERTEL, Jr., Freeburg, Ill.
E. L. ARMSTRONG, Jerseyville, Ill.
ARTHUR TODD, 1910 Germantown Ave., Philadelphia
G. B. LEWIS & CO., Watertown, Wis.
E. KRETCHMER, Coburg, Iowa.
E. F. Smith, Smyrna, N.Y.
EZRA BAER, Dixon, Lee Co., Ill.
J. B. MASON & SONS, Mechanic Falls, Me.
M. J. DICKASON, Hiawatha, Kans.
ED. R. NEWCOMB, Pleasant Valley, N.Y.
J. W. PORTER, Charlottesville, Va.
ASPINWALL & TREADWELL, Barrytown, N.Y.
BARTON FORSGARD & BARNES, Waco, Tex.
W. E. CLARK, Oriskany, N.Y.
PAUL L. VIALLO, Bayou Goula, La.

and numbers of other dealers. Write for SAMPLES FREE and Price List of Supplies, with 150 COMPLIMENTARY and UNSOLICITED TESTIMONIALS from as many bee-keepers in 1885. We guarantee every lurch of our Foundation equal to sample in every respect.

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

Promote a Home Market!

By a judicious distribution of the Leaflet,

“HONEY: Some Reasons why it should be Eaten.”

It never fails to bring results. Samples sent on application. Prices, printed with your name and address: 100, 80c.; 250, \$1.25; 500, \$2.00; 1,000, \$3.25.

The D. A. JONES CO., LD., Beeton, Ont.

APIARIAN SUPPLIES

MANUFACTURED BY

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

Are unsurpassed for **Quality** and fine **Workmanship**. A speciality made of all sizes of the **Simplicity Hive**. 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. Also manufacturer of **FALCON BRAND FOUNDATION**. Dealer in a full line of **Bee-Keepers' Supplies**.

Send for Illustrated Catalogue for 1887. Free.

W. T. FALCONER.

BEE-KEEPERS' GUIDE

—OR—

MANUAL OF THE APIARY

15,000 SOLD SINCE 1876.

The fourteenth thousand just out. 10th thousand sold in just four months. More than 50 pages and more than 40 costly illustrations were added to 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 & Publisher,

State Agricultural College, Lansing Mich

WONDERFUL OFFER FOR 30 DAYS.

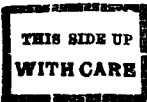
I will sell all-in-one-piece Sections for 30 days or while this advertisement appears here as follows:—42x42x18, 1000, \$4.50; 5000, \$20; 10,000, \$38. Send two cent stamp for sample. All Apiarian Supplies on short notice and cheaper than ever. Bee-Keepers' Advance for one year and a Cold Blast Smoker, all for 75 cents! We are offering special rates on honey cans. We are manufacturing the best Honey Can for shipping that is now offered. This can can be made air-tight for shipping which is more than can be said of other cans. They can be shipped with perfect safety. Our 60 lb. square cans boxed with nice planed lumber is taking the lead. Drop a card for our special low rates, the lowest ever offered.

We guarantee satisfaction. Our new Honey Extractor at the old prices. Comb Foundation a speciality.

S. P. HODGSON,
Hornung Mills, Ont.

SHIPPING LABELS.

These are for pasting on the tops of cases.
Price, per 100, 5c. by mail, 6c.
" 100, 25, by mail, 27
" 1000, 1.50 by mail, 1.60



THE D. A. JONES CO., LD., Beeton, Ont.

NO BEE-KEEPER

SHOULD BE WITHOUT

Clarke's Bird's Eye View of Bee-keeping

68 pages, bound in cloth; profusely illustrated; price 25 cents.

THE D. A. JONES CO., LD., Beeton.

BEEES AND HONEY

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

M. RICHARDSON & SON,
Port Colborne, Ont.

THE

CANADIAN *POULTRY *REVIEW

IS THE ONLY PAPER PUBLISHED IN CANADA IN THE INTERESTS OF THE

Poultry, Pigeon and Pet Stock Fraternity. Circulation always on the increase. Subscription only \$1.00 a year. Address,

H. B. DONOVAN,
20 Front St. East, Toronto.

FRIENDS. IF YOU ARE IN ANY WAY INTERESTED IN

BEEES AND HONEY

We will with pleasure send you a sample copy of our **SEMI-MONTHLY GLEANINGS IN BEE-CULTURE**, with a descriptive Price-list of the latest improvements in Hives, Honey Extractors, Comb Foundation, 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.

A. I. ROOT, Medina, Ohio.

FOLDING BOXES

Our **Cartons** for enclosing Section Honey are the best and lowest priced in the market. Made in one piece. With or without tape handles, with Mica fronts or without. In the flat or set up. Printed or not, any way to suit. We are bound to satisfy you. We have just put in special machinery for their manufacture and are prepared to fill orders promptly. Price list **Free**. Samples 5c.

PRICE LIST OF 4 1/2 x 4 1/2 x 2 OR THINNER.			
	500	1000	5000
Advance Printed.....	\$4 50	\$ 7 75	\$22 50
Same with Mica Front.....	5 50	9 00	40 00
Same with Tape Handle.....	5 25	9 00	38 75
Same with M F and T.....	6 50	10 50	46 25

14 oz Glass Jars \$5.25 per gross, including corks and labels. 1 1/2 and 2 gross in a case. Catalogue of Honey labels free.

A. O. CRAWFORD, S. Weymouth, Mass.

TORONTO . . . SUPPLY . . . DEPOT.

AT BEETON PRICES.

MR. JOHN McARTHUR,
845 Yonge Street, Toronto, Ont.

For the convenience of bee-keepers living within driving distance of Toronto, and inside the city limits, we have established an agency at the above address. All orders which he may be unable to fill promptly will be sent on to Beeton and be filled from here. He will have on hand a supply of hives, sections, foundations, knives, tins, etc.

THE D. A. JONES CO. LD., Beeton.