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Vol. 3. BRANTFORD, SEPTEMBER, 1889. No. 7.

# The Canadian Honey Producer, <br> published by 

E. L. GOOLD \& Co., Brantford, - - - Ontario.

Published Monthly, 40 cents per year.

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## THE CANADIAN HONETY PRODCCER.

Vol. 3. September, 1889. No. 7

## OUR OWN APIARY.

The lynden flow has been rather light in this locality, or more properly did not last long. When it failed the bees again turned their attention to clover. A light flow with a slight increase in weight of hives continued until August 27th, when boneset opened and comb building, swarming and honey gathering is going on at present date, August 2oth, more actively than at any time since June 27th. Prospectsare bright for anexcellent fall flow of honey, hundreds of acres of boneset, golden rod, aster, and other fall flowers. It is a difficult question to decide if we shall leave sufficient clover and lynden honey in combs for winter stores, or if we shall extract this and leave the bees fall honey. It is highly probable that we shall give half combs of sealed clover and lynden honey and the other half fall honey and note results. Of course it must be remembered, the result will not prove much, only assist in the mass of evidence brought out, as the season may be peculiar. The honey may have something exceptional in it, and again this fart of Ontario will likely have days through the winter during which bees can have flies, while in no other part of Ontario they can fly.

Last year Prof. Cook suggested that an experiment be conducted with different kinds of food for winter stores. This is an experiment which should commend itself to bec-keepers ; one which should if properly taken hold of, result in great gain to bee-keepers, either by diminishing the mortality in wintering or diminishing the cost of winter stores. We are very much pleased to note that nine liave promised to conduct the experiment men-
tioned with chloroform to prevent swarming. Prof. Cook of the Michigan State Agricultural Collcge is conducting a similar experiment as well as a number of others. We feel satisficd a beginning only requires to be made to lead hundreds to see the benefits to be derived from experimentation in bee-keeping. We cannot throw too much light and give too much information about bee-keeping, it is the lack of it that injures, overstocks localities, causing the producer to sell too low. Knowledge and intelligence never injured it, and we are often afraid that those bec-keepers who are reticent and mysterious do more to overstock a locality than the over sanguine who only look upon its bright side.
Aug. 26th.-We are having the best Fall honey flow it has been our fortune ever to see; our observations cover nine years. Boneset is not much more than open and some colonies have already given us over 30 lbs . to the colony. Golden rod has not opened sufficiently to give anything.

We have had more swarms the last ten days than during the entire previous part of the season. We hope to be able to report a profitable season in the October number of the Canadian Honey Producer.

We learn from Mr. R. H. Smith, Bracebridge, Ont., that the season with him has been rather below the average. Mr. Smith has a chance to dispose of some honey. Our readers will do well to correspond with him if they have any honey to dispose of.

Frequently we receive orders for queens by return of mail. Of course with virgin queens this is all right, but a queen breeder cannot do himself or his patrons justice by such a procceding. A good laying queen should be out of the hive some time bcfore she is shipped. The very best way is to pat her in a nuclei two days before caging, and then cage another day before mailing. The change from do
positing perhaps 4000 eggs a day to caging and transit by post is too great and kills or injures the queen. Do yourself and others justice and no longer demand queens by return of mail.

In another column we publish a letter from an English firm who appear anxious to handle Canadian r zaeyWe know nothing of the firm but have no reason to believe it is not a reliable firm. If so Canadian bee-keepers should encourage opening of markets there.

We think bec-keepers gencrally are fairly well satisfied with the results of the season. It might however be better.

In another column we publish the Apiarin Premium List of the TRIState Fair to be held at Toledo, Ohio, Scpt. 9-1 3 next. Dr. A. B. Mason, President American International Bee Association we notice is again Superintendent. It would be difficult to imagine a more genial and pleasing superintendent, and we congratulate the association upon having secured his services.

We are more than pleased to say that the honey crop has apparently been so large as to insure a very large gathering of Bee-Keepers at the International American Bee Convention at Brantford and especially so within a large circle of Brantford. Mrs. C. F. Holtermann, Fisherville, ( 30 miles from Brantford, has already (July 27th) secured from seven colonies, 600 lbs . of honey, and honey still coming in. Reports generally, are fully as good in that disisict.

It is with pleasure that as a whole we have been able to point with pride to the Honey and Apiarian Supplies Prize List at Toronto from year to year, although it has been our opinion in the past that it had its defects. The Prize List is wcll worthy of attention during the present year. We wculd
however desire to point out what we consider a defect. There is no section under which honey can take a prize for quality alone. The result is it virtually debars any one from exhibit ing who does not in person place it in position at the exhibition.

We heartily agree that display should receive great consideration when shown in large lots but should thnse (and they are the vast majority) who cannot attend in person not have an opportunity of sending extracted honcy in glass and be able to receive a prize upon its merits as honey? we think they should, and trust that the committee appointed to make out the Prize List, will in future, give this matter careful consideration.

It will be pleasant to have as many bec-kcepers as possible meet in Toronto during the Exhibition held therc. To do this a day might be fixed upon which as many as can make it convenient could come. Wednesday the second week would suit the views of many. The Canadzan Bee Journal suggests Tuesday or Wednesday.

## The Bee-Keepers' Union has made its mark.

We are in receipt of a printed copy of the History of the Arkansas Law Suit, entitled, Z. A. Clark vs. the City of Arkadelphia, Arkansas. Any one wishing a copy may have the same by sending address and stamp to pay postage to the able manager of the Union, Thos. G. Newman, 923 and 925 West Madison St,Chicago. We should like to copy t' e pamphlet in full but space will not permit. The decision of the Suprame Court, June 22nd, 1889, was as follows :
deeision of the supiente codrt of aheansas, june $22,1889$.
127 (Crim.) City of Arkadelphia vs, Z.A.Clark.
The Appellee Clark was convicted in the

Mayor's Court of Arkadelphis for a violation of the city ordinance. The ordinance under the prosecution was had provided that it shall be unlawful for any person or person ${ }_{B}$ to own, keop or raise bees in the City of Arkadelphia, the same having been declared a nuisance. Upon an appeal to the Circuit Court, that Court austained a demurrer filed by the defendant, and dismissed the prosecution.
Held.-jeither the keeping, owning ar raising of bees is in itself a nuisance. Bee may become a nusanace in a city, but whether they are so or not, is a question to be judicially determined in each case.
The ordinance under consideration undertakes to make each of the acts named a nuisance, without regard to the fact whether it is so or not, or whether bees in general have become a nuisance in the city. It is therefore too brosd, and invalid.
Affirmed.
This is a great triumph for the manager, officers and members of the Union. At first we confess it was with some hesitation we became a member of the Union, however the thought that at any moment we could withdraw from it and the high esteem in which the leading spirits in the undertaking were held by Bee-Kcepers at large and the necessity of a Union rightily conducted aside from any selfish motive induced us to become a member and continue to be such up to the present time, we have no doubt that now many who have been willing to support the Union financially and otherwise, but have hesitated from a desire to do right will now support the Union and give the assistance which it so much requires. The following will therefore be of interest. Send your entrance fee at once, do not leave it until you forget.

## HOW TO JOIN THE UNION.

Several have lately sent inquiries to know how to become members of the Union. In order to answer all at once and save writing a letter to each, we invite attention to the following:

The Entrance Fee is $\$ 1.00$, and
that pays for the loues of any portion of the unexpired current ycar, ending Dec. 31.

Then it costs only one dollar ${ }^{r}$ : Annual Dues, which are payable e."
New Year's day, and must be pu! within six months, in order to retai., membership in the Union.

If membership ceases, all claims against former members also cease; rid all clims to the protection of the nion are dissolved.
The Constitution as last amended reads as follows:

Article I.-Thisorganization shall beknownas the"National Bee-Keepers' Union," and shall mect annually, or as often as necessity may require.

Article II.-Its object shall be to protect the interests of bee-keepers, and to defend their rights.

Article III.-The officers of this Union shall consist of a President, five Vice-Presidents, and a General Manager (who shall also be the Secretary and Treasurer,)whose duties shall be those usually performed by such officers. They shall be elected by ballot, and hold their several offices for one year, or until their successors are elected; blank ballots for this purpose to be mailed to every member by the General Manager.

Article IV.-The officers shall constitute an Advisory Board, which shall determine what action shall be taken by this Union, upon the application of bec-keepers for defense; and cause such extra assessments to be made upon the members as may become necessary to their defense; prowided that only one assessment shall be made in any one fiscal year, without a majority vote of all the members (upon blanks furnished for that purpose, ) togeti.er with a statement showing why another assessment is desirable.

Article V.-Any person may become a member by paying to the

Gencral Manager an Entrance Fee of ONE DOLLAR, for which he shall receive a printed receipt making him a member of the Union, entitled to all its rights and benefits. The Annual Fee of $\$ 100$ shall be due on the first day of January in each year, and MUST be paid within six months in order to retain membership in this Union.

Article VI.-The Funds of this Union shall be uscd for no other purpcse sinan to defend and protect its meabers in their rights, after such cases are approved by the Advisory Board ; and to pay the legitimate expenses of this Union, such as printing, postage, clerk-hire, \&c.

Article VII.-This Constitution may be amended by a majority vote of all the members at any time.

The Entrance Fee and Dues must be sent direct to the General Manager, Thomas G. Newman, Chicago, llls., who will record the names, and send receipts for every dollar sent in. The Union needs funds now, and at least one thousand bee-keepers should each become members immediately,

Thomas G. Newman, General Manager.

## Glearings in Bee Culture.

## Bee-Keepers' Conventioins, \&c.

our good friend dr. mason gives us some ghimpses and hints in regard to then.

Friend Root:-I wish I had the discriptive power of some of your correspondents, so that I could tell about my observations, made when on a ramble, and of the amateur experts I see at such times, in an entertaining way. At any rate it may not be uninteresting to learn that, in this locality, or within the bounds of our Tri-County Agricultural Society, comprising the counties of Lenawee and Monroe, Mich., and Lucas, Ohio, the bee-keepers are awake to the importance of improving every opportunity to educate the people in regard to our impritant and growmg industry.

A year ago last winter the society held a three days' meeting at Monroo, Mich. It was just "chock full" of enthusinsm, and beekeepers did thoir full share. It was so arranged as to have our speciality discussed in the evening, when thore would bo a full attendance of people from the city, whom it is quite desirable to disabuse of their false belief in regard to the adulteration of our product, and correct the false impressions made by "wily" lies and newspaper squibs-the production of the fortile imaginations of reporters.

The next weok after the above mentioned meeting, a farmers' institute, under the auspices of the Ohio State Board of Agriculture, was held in this scounty, ten miles from Toledo, at which our friend T. B. Terry was one of the lecturers, and our specielty was again brought to the notice of the farmers and others by the roading of a paper by myself, and the subject received its share of attention. And again at a like institute held in anothor part of the county on the kast day of last year and the first day of this, the subject was again presented by an essay that gave something of the natural history of bees and the benefit they are to the farmer and to tho horticulturist.
Last winter at Adrian, Mich., was held the anniversary of the Lenarree County Horticultural Society, and one of the principle addresses, through the efforts of one of your patrons, Mr. D. G. Edmiston, of that place, was on the relation of bee culture to horticulture. It was well received. Again in January last was held at Adrian the meeting of the Lenawee County and the Tri-County Agricultural Societies: and on the programme for one of the evening sessions, half of the time was given to a paper on bee-keeping, etc., by $\mathbf{H}$. D. Cutting, of Clinton, Mich., and to one by your humble servant. The subjects of both papers were discussed by such bee-keepers as D. G. Edmiston, Mr. Allis, A. M. Gander, and others; and the discussion showed that a lively interest was taken in the subject. I never was at a gathering of any kind where so many sample copies of bee-journals were asked for by interested parties.

Mr. Newman had kindly sent some copies of the American Bee Journal for distrikution, I and I had some extra numbers of Gleaniagos
to distributo also, and thoy wero given to interested parties, and I doubt not you will hear from some of them. I had some cupies of "Dot happy Bee-Man" song with mo, and at the close of the discussion of the bee essays the glee-club sang it, to the ovident satisfaction of the hundreds present.

At the close of the institute, at the solicitation of our friend H. D. Cutting, we (that's my better half and I) went home with him 22 miles by rail, and had a good threo-days' visit with him and his family.

Of course, I had to take a good peep at his bees. Till the last two or three winters his bees have been wintered outdoors, packed on their summer stands, but he is now a thorough convert to the benefite of cellar wintering. His cellar is under his house, and used as a family cellar for vegt tables, etc., and is $16 x 24$, and 7 feet high. He has made a kind of rack along one side and end, so as to hold three tiers of hives, which are set with their entrances toward and within a fow inches of the wall, each one being easily removable without disturbing any others. The frames are covered with enamel cloth, and the bottom-board is left on. Some of them were placed in winter quarters Oct. 20, and the last on Nov. 20 ; and I am safe ir saying that there were not two quarts of dead bees on the cellar bottom, from about 40 colonies, and none had been taken up. A small window at one end admits light at all times, sufficient so that no artificial light is - needed to see to get things from the cellar, and but little light reaches the bees. He prefers a temperature of from $38^{\circ}$ to $40^{\circ}$. If with the temperature of my cellar, $50^{\circ}$, I were to admit light, I should have to carry out mostly dead bees in the spring.

On the evening of the second day of the institute I had the pleasure of going home with and being entertained by Mr. E. W. Ellis, president of the Adrian Scientific Society. He lives five miles in the country. and metaphorically, is full of bugs, beetles, and reptiles, etc. Being rather timid and having no especial liking for such animals, you can perhaps imagine my feelings on being ushered into a room about twelve feet square, more or less, " zhust zhammed crammed full of dose pets vot vorks all der day und ncfer silhietp nights, more's ten tousand hundert, I
bots." But then I soon found they were all dead. Mr. Allis is an enthusiastictic ont.molugist and he has a large library of scientific books, and seemed to know all that w.as in them. Of course, ho keeps a fuw colonius of been, and tries all sorts of experiments with them.

We were entertained at Adrian by Mr. Edmiston and family ; and of course ho keeps bees, or how else could I possibly have stayed over night with him? His bees are winterod on their summer stands, in chaff, and other hives of that character; and being a smallfruit grower and nurseryman he does much toward properly educating the people of his locality in regard to bees and their work and production.

During the last two winiors I have attended five of these institutes, held in the three above-named counties, and mado special preparation to present our branch of agricultural and horticultural interest, bee culture, etc., in the most interesting and attractive form that it was possible for me to do. If any other bee-keepers were present, they have willingly "lent a helping hand." In no case has an effort beer. made to induce any to engage in bee-keeping as a business, but to give in as entertaining a way as possible, a brief natural history of bees; tell where honey comes from, and how the bees gather, store, and ripon it : how extracted honey is secured, and, if possible, illustrate ; tell how and in what way bees are a benefit in fertilizing and cross-fertilizing fruit and other blossoms. Also tell about the reported injuries done to fruits, grapes, etc., by bees, and how they have been accused of "eating young ducks," etc., and correct these false impressions. It is the bee-keepers' own fault if our business is not properly brought before the public at agricultural, horticultural, scientific and other gatherings. To be sure, it is not an easy matter for a làrge majority, perhaps, of bee-keepers to prepare entertaining articles on our specialty ; but "there is nothing like getting used to it." If one is not accustomed to $i$, and does not feel capable of preparing an ontire article, just let such a one get, if he has it not already, a work entitled "Bees and Honey," by Thos. G. Newman, and the first fourteen pages will make an intercsting intreduction. It has
just such infurmation as is interesting to the genoral public, and writton in a very interesting way. When the next opportunity presents, mako selections from Prof. Cuok's Manual of the Apiary, the A. B. C. of Bee Culture, cither or buth, always giving proper credit, of course, and you will be surprised at the amount of interesting and valuable information that can be thus furnished to willing listeners. And now that the new edition of Langstruth on the Honey-Bee, just revised by Charles Dalant, is to be had, there seems to bo no end to interesting matter. New ideas are put furth, and the old ones are put in new dress, so that one is almost "lust in wonder, love, and praise."

Then the difforent bee-journals are constantly teeming with things new and old, so that, if one had nothing else to enjoy or do, he might almost revel in an elysium of beelore. We bee-keepers should be part and parcel of all agricultural and horticultural gatherings, whether for dicussson or fun and frolic, and also of many scientific and social gatherings and should "let our light shine." In order to have tre proper amount of time alloied to us at these gatherings we must be on hand and have a hand in making up programmes, and see that the right ones are putin to fill the bill.

## A. B. Mason.

Auburndale, Ohio, Mar. 18, 1889.
Mr. Root adds:-Friend Mason, I can readily imagine how all these conventions succeeded, had a good attendance, and that fun and frulic, as well as education and information, were the order of the day, providing you were present. I have attended some conventions where thej could not get hold of a Dr. Mason, a Dr. Miller, nor a Prof. Cook, and it was hard work to keep things lively, and to keep up an interest. Wo certainly should be 1 art and parcel of all agricultural and horticultural conventions, and wo ought to let our light shine. If we do not it is very apt to burn dim and go uut. May God help us alung the line which sou hase mapped out.

We trust there will be many at Brantford to see the significance of friend Root's remarks about Pres. Mason, Dr. Miller and Prof. Cook.ED.

## The British Bee-Juurnul.

## Removing Suppers from Hives.

One of the, if not the most pleasing duties of the bee-keeper is the removal of suppers or surplus compartments from off the hives, when filled, with, perhaps, the snow-white combs stored with white clover honey, or to some the much handsomersaffron colouredones laden with the nectar obtained from its relation the sainfoin; other beo keepers away in the far north experiencing the same delights when later on in the season they take possession of the beautifully white, aromatical, and strongly flavoured sections obtained from the purple hether. Each of these, when not "well up" in the most easy and simplemethods used in depriving the bees of these rich stores, experiencing at time of removal a not too confident reliance upon his own ability in completing these removals without obtaining a punishment-from the denizens of the hive, more or less in severity according to the temper of thecolony, or the skill or means adopted in such a manipulation. To the novice it is often with fear and trembling that he attempts the removal of a pile of section racks from off a strong colony, thus at the offset, we might almost say, courting an ill deserved punishment, which, after a little experience of the knowledge governing a colonj's method of protecting its hive, and also the best means used in the subjugation of such, would never be received or oven thought of.

The bee-keeper attacks a hive at its most vulnerable point (wise bee-keeper !) such being that farthest removed from the entrance, where a bee naturally expects an enemy, and for the time being the bee-keeper, from a bee's point of view, takes the part of such. When this part, the top, of a hive is exposed upon a fine day the bees presented to view are chiefly theyoung ones, those inesperienced in the art of using their atinge and are also the most easy of eubjection for reason of their inexporiencs. A young bee rarely if over, attacks ; it is the old warriors who with partially raised winge and heads continually shifting sharply from side to side, who will with such eager haste ondeavour to thrust their stings into the bee-keeper's cuticle and die wher such is effected.

It is our purpose now not to conjure up
ugres in the shape of bee-stings for the novice but to ondeavour to allay those unnecessary fears which every novice, and occasionally the more experienced beo-keeper, feels when disturbing a verystrong and prosperuuscolony. Wo may take it for granted that a fairly vicious culony usually makes the besi returns in the shape of honey. We do not mean thuse who without the slightest provocation will dart out from the entrance and plant their stings in one's face, as these wo always weed out from our apiary, but a colony always on the alert for the protection of their stores, those which our American cousins designate as having plenty of 'vim' in them, are the chosen ones in our apiary, so that it is necessary that we use the most improved methods, and also the most effectual means, of sulbjugation known.

This season we have had hives 'tiered up' with five racks of sections and full from top to bottom with bees. Such a sitadal seems to present quite an unimpregnable fortress, and yet, without veil or gloves, often with our shirt-sleeves turned up to the elbows have we removed every rack and come off scatheless. It is this easy and effectual method which wo now are about to present to our readers that they, like ourselves, may look upon 'taking off supers' as a pleasurable occupation, a thing to be longed for during the weary months of winter, and hailed with delight when it does occur.

We will suppose, fur example, that a hive is 'tiered up' with three racks of sections, the top one of which is finished and we wish to remuve same, and also insert an empty one under the other two. On a fine mid-day we provide ourselves with three carbolised cloths and a cold chisel . r screw-driver. Taking off the rouf of the Live we turn up the edge of the quilt and roll it back, while so doing we drag one of the carbolised cloths-which has two pieces of taye tacked on ci.ch of the two top corners, Into which we have hitched our thumbs-uver the space uncovered. The bees have thus never bean exposed and know nothing whatever about the attack until the subjugator is at work on them ; they immediatelg run out of the top rack and commence to gorge from the uncapped sections undernealh. Now insert the end of thescrem-driver and pry the rack ur until it is lovee, wait a
fow seconds, and then quickly lift it off, atanding it upon its edge with the carbolised cloth towards the wind, if there is any. At once lay one of the other cloths upun the next rack and then pry the lower one from the frames; do this gradually, and notice that you are not lifting any of the frames with the rack, as if so, the bees will instantly become irritated. Where the movement of the rack mutes any of the frames a finger should bo pressed tirmly upon the offending frame and the rack raised at the same time; this wil luusen the attachments. When su luusened allow a few secunds to elapse and then lift the twu racks budily, rest them on the ground or on a table near, and quickly place the empty rack on top of frames, and replace the two just removed; remove carbolised clolh substituting the quilts for same. The job is done in three minutes and hise covered up even before the bees in lower part, or body box, are even aware of the change.

We advise having three cloths; the third one will be found to be exceedingly handy to drive any bees down that may have come up on top of frames before placing on empty rack.

We must now turn our attention to the rack of sections which were first rèmoved, and which we advised to be placed with the carbolised cloth towards the wind. To many this caution seems of iittle use, but we find this one of the most important 'tips' of the whole. Upon taking off a rack of sections, no matter how carefully done, a cortain number of bees will be sure to be left in it; these, upon boing separated from the hive, will commence to attack the cappings of the honey cells, gnawing little holes through, and so marring their appearance entirely. Now if we place the rack with the carbolised cloth towards the wind a current of air passes through it, and then through the spaces be. tween the sections, carrging with it the vapour of carbolic acid, so driving out most of the bees or keeping those which do zemain in continually on the move. Bear in mind that wherever a cluster of bees congregate between the sections after removal from hive just at the point of congregation will the cappings be damaged. Now remove each of the sections into a clean rack or tray, brushing the few remaining bees off with a single feather from the wing of some large bird; this will
be found much less irritating to the bees than either a brush or the whule wing of a bird, it is alsu more easily handed. When honey is coming in plentifully the emptying of the section racks can take place by the sideof the hive in the open air, but later in the season it must bo takgn indoors, proferably in a room where the windows open outwards, so as to allow of the esrope of the few remaining bees on the sections.

Wo cannot understand our American cousins taking off section racks and allowing them to remain for a considerable time before ontirely clearing out bees, their losses in this particular must be considerable from perforated cappings.
Nothing is so effective as the carbolised cluth in the removal of sections. A smoker or fumigator is simply nowhere by the side of it. With a smoker or fumigator the bees in just one part of the super only are being sub. jugated, but with the cloth the bees in each interstice are receiving their share of subjugation, whilst they are driven out so thoroughly as practically to leave none behind to clear out afterwards.

## C'madian Live Stocl: Journal.

Fall Flow of Honey.
bY R. F. HOLTERMANN, ROMNEY, ONT.
The uncertainty of a fall fluw of honey makes it extremely puraling for eren the expert in bee-keeping to know what to do.Golden rod, boneset, and the like, at times and in certain localitics, give an excellent How of honey. The haney, however, for table use, and as winter stores for the bees, is considered inferior. Many are the accounts given of the loss of entire apiaries, and the cause assigned, inferior honey for vinter strives. How often the true cause is as given no one kuows; it may be the direct cause of winter losses; it may assist in bringing about losses, or it may possibly hare nothing to do with it. In the face of so many

- testifying to fall homey being inferior for winter stores, we may cunsider it somenhat rash to leare this chass of honey with our hees. Uf course there are certain cunditions under Which it is still more hazardous to winter than whers. If wiutered on summer stands
the stores must be of the very best. If wintered in a first-class cellar it is not quite as impurtant to have the best of stores, although even then it may pay botter.

Now where an upper story is used-and it always should be during the honey season, and we have a good prolific queen, it will be found that the lower atory rarely contains sufficient honey for winter. This is particularly the case where extracted honey is taken. Every man should seek to know his own locality. If there is no golden rod, boneset, etc., he knows he will have little or no fall flow, and is safe in making calculations on leaving enough honey in the hive at the close of the basswood flow. Thistle may yield well and give quite a surplus, but the crop is very uncertain.
The system I adopt is to either put a eecond upper story on putting it between the broodcharnber and first story, or by leaving two or three nicely sealed combs in each upper story. Some hives may need some of these combs, and more than two or three others will reyuire none, and by using proper judgment these surplus combs may be utilized whereover required; and if there are more than enough they may be extracted. By this system all fall honey may be taken from the bees, and any danger of loss from this source avoided. It must, on t'sa other hand, be rememberth, if you extract; the inferior honey, which will be a little of $f$ in color and flavor, you must be prepared to take a lower price for it ; and it should never be sent away, as your facilities at home are always greater for disposing of it. Such honey, if sent to cities, is only of use for baking and cooking purposes. The demand is limited, very limited, and not unfrequestly it fetches only 5 to 6 centsalb., and generally only 7 cts . With ordinary honey at $13 \frac{1}{2} \mathrm{c}$. perlb. many at home, if properly understood, will take this at 9 c to 10 c . per lb .

## WOKK IN THE APIARE,

Generally, during August, the work in the apiary should consist in not doing anything which can at all be avoided. Honey flows are not frequent. By upening hives and exposing honey comb the bees get demoralized and rob whenerer opportunity offers. They will try to get into the hive of a neak culong
or get into the house, and matters are very unpleasant at times, not only to yoursolf but your neighbors. If you have to do much work in the apiary it is well to eithor get a bee-tent from a supply dealer or make ono jourself.

In making a tent one should aim at cheapness; but bear in mind that the best is tho cheapest. Let it be large enough to stand over a hive and give you roum to sit inside and do necessary manipulations. It may be covered with mosquito-notting, or better, wire cloth. Upon reflection, it will be seen that when not in use the tent should be under cover, and yet the size of it will make it difficult to get it in anything short of a barn dour. Mar.y have been made to fold, or the sidee may be taken apart. This is a very convenient arrangement, and a little study will enable any one to make such a tent If taken care of such a tent will last for years and prevent much unnecessary trouble. The bees, too, are less liable to sting; in fact, for this alone any one who suffers much from the sting of the bee might use such a tent to advantage.

## Gleanings in Bee Culture. An Interestirg Experiment.

## the possibilities of increase from a

 single swabm.Mr Root:-Ab I promised you a yearago, I will now give you a report of an experiment I made last year with a single hive, a secund starm of the previous year.

1 made this experiment in order to test the ability of bees to increase during one year, and luild their own cells and hatch their own queens and draw cut their own combs from foundation, all of which I compelled them to do by feeding. Sugar was the only means by which they were enabled to build up their stores, for there was no surplus honey taken last year in this township, that I know of ; and what little honey there was, was gathered in the early part of the season. All the rest mas honer-dew, and, as a consequence, fully 50 or 60 per cent of the bees in this vicinity dwinded to nothing, leaving their unhealthy storea behind them. I kurow of a number of persops who lost all their stauds,
and une man in particular (a friend of mine) who went inte winter with 40 full colonics and lost all but one, I will now prowed to give you the result of the experiment, as copied from my memorandum-not in detail, howe ver, as I fear it would make my report tow long.

Jume $\boldsymbol{7}$-The hive in yue stion swarmed; aizd kmewing that it would swarm momore, as the gucen cells were cut down aiter the first queen hatched: I divided them during June inturne colonies, placing them in ono story hives, contracting them by division hoards to the neeessary space. My queens then gave me sume trouble, for I never before lost sumany during mating time. Some of them were caught by bee-birds. I tako the following note from my memorandan:

Junc 27.- Only two of the eight turens or the experiment hive are laying.

The following month I gave them frames of foundation as they needed them, and often they were not full frames, for I was compeiled to cut the fumdation into four starters, for fear I should run out altogether.

August 3.-I cummenced dividing theaforcsaid nine hives, which had from seven to ten frames in each, by taking twe frames of latching browd each day from the two hives that could spare them best, and putting in nuclei, made deep enught to admit of feeding inside, on top of the frames. I then closed tho entrance of each one as soun as made, and let it remain so uutil the second niglt about twilight, and sumetines until the third night After the first ten days 1 was able to mature queen-cells every day, and replace any that might have been cut down or otherwise delayed. In this way 1 made one and two nuclei a day, sometimes none, as fur itistance a wet day or Sunday. Of course, I replaced every frame of brood taken out with a frame of foundation; and to each nucleus, when made, I aleo gare a framo. Thus I worked on until the 15th of September, and finished my dividing some of the first nuclei that I made. The result was that I increased the said nine hives, or, rather, the one second swarm of the previrus jear, to 61 three-frame coldnies.

Although they hatched all their iueens, I
found, toward the last, that they were not meeting drones, for the reason that there none to meet. I thion as a forlorn hope, when too late, as it proved, sent off for queens, 18 or 20 in all. Some of them were accepted, some wore missing aiter being accepted, a few commenced laying, but soon stopped, and of cuurse, for want of more egge or brood, they were unable to get through the winter far enough to rally, but succumbed to their fate, queens and bees alike. Not a queen of all 1 purchased, nor the hives to which they were introduced, survived, except the last hybrid I got of you ; so that 10 died, leaving me 45, which up to date have not had nor do they need, an ounce of feed.
I sold during the winter and spring, 27, which are gone and paid for. Their valuation is as follows :

$$
\begin{aligned}
& \text { Sold } 22 \text { at } \$ 5.00 \text { each. .......... } \$ 110.00 \\
& \text { " } 5 \text { " } 6.00 \text { " .......... } 30.00 \\
& \text { Retained } 18 \text { at } \$ 5.00 \text { each...... } 90.00 \\
& \text { Tutal. . . . . . . . . . . . . . . . } \$ 230.00
\end{aligned}
$$

The above 18 I kept and I put them at $\$ 5.00$ each, althrugh they are now worth $\$ 7.00$ each for they have increased to full hives with top stories on, and some have even swarmed. In regard to feeding, I was very particular to weigh every ounce that I fed to the parent hive, her children and grandchildren. They got no stimulation except what they derived from the sugar I fed them. The sugar item is as fullows:

Fed during April and May. . 30 pounds.

| " | " | July. | 62 | ، |
| :---: | :---: | :---: | :---: | :---: |
| " | " | August | 206 | " |
| " | " | Suptember | . 402 | " |
| " | " | Octuber. | . 150 | ، |
|  | Tutal. . . . . . . ....... . 850 pounds. <br> At. ......... $8 \frac{1}{2}$ cents. |  |  |  |

$\$ 70.00$
I extracted 45 pounds from the combs left by the bees that died, which contained 32 pounds of sugar, or its money equivalent, $\$ 2.00$, leaving the total cust of sugar used $\$ 68.00$. My net profit then was $\$ 162$.

Had last year been such a year as 1886, or even such a year as this, and had I known what I do now, I could more easily have
increased the one to 100 with the same amount of sugar than I did last year to 61, and I am satisfied 1 would not have lost any in wintering. But even this increase seems incredible. Suppusing the population of the earth to bo fifteen hundred millions, this ratio of increase for six years would furnish every man, woman, and child on the globe with a fraction over $5 \frac{1}{2}$ colonies each.

If there is any thing you would like to, have explained in detail, put your queries in the form of questions, and I will answer them very readily.

Henhy Lahee.
Whigville, O., May 30, 1889.


> Americen Bee Jomanal.

## SELLING HONEY.

Do not sell the New Crop too suon er two ctivap.
BY TAALES HEDDON.
Pleased at the partial improvement upun the past two seasons, many bee-keepers have been praisiug 1889 as a honey year. It begins to look plain to me, that, taking the country ail over, we are not going to have an average crop, by considerable. The past two poor seasons have cleared the market of honey and got consumers into the habit of paying better prices then furmerly. As it is a fact that we need it to keep our business equally profitable with other lines, let us hold up to these prices.

In this lucation the season is not as gcod, up to this date, as were the past two very poor years. We have not one sixth of a crop. Basswood is in full bloom, all of half passed, and not anything like an average yield so far. Clover bloomed profusely, but yielded very stingly. This ends the white houey crop.

Pleurisy-root is not yet plentiful enough here to produce surphus honey to much extont in so large apiaries as mine. It is just getting into bloom, and the bees are thick upon it, wiile thay leave every other plant for the basswood. We can see the honey standing in the blossoms in littlo drops, and the bees crawling all over it, rapidly losding and going home. Only a few years ago wo could not find a dozen plants within the ra-
dius of our apiaris. In a fow years more, we expect it will yield us a grood surplus crop, if nothing unforseon happens.

Du nut be in a hurry to sell your honey. What you do sell early, do not sell it cheap. Let us wait till we see that we have to.

Dowagiac, Mich., July 13th, 1889.

## CORRESPONDENCE.

London, England, August 1st, 1889.
Tu Mr. Holtermann, Brantford, Canada.
Dear Sir. - When in Canada this spring our Mr. Boswell heard of you from Mr. W. F. Clark of Guelph.

In case you are in a position to ship any honey this year, we should be glad to handle your consignments to London, Liverpool or Glasgow.

Honey should be shipped in casks about 112 lbs. each, or tins 60 lbs . each, two in a case, casks preferred, and should be white and of delicate fiavour. Narbonne Honey is now selling at 56 s . and there is a good demand. In case of business we should be glad to give you references.

Yours truly,
War. Boswell \& Co.
Successors to Wm. Bryce \& Co., 36 Mark Lane, E. C., London England.
We publish the above as it may lead others to correspond with these people and open out a market for Canadian honey. We know nothing about the firm further than is herein contained.-Ed.

Dear Sir :-Will you be kind enough to insert in your paper for September, and let me know the best time for to double up my bees, as $I$ want to reduce the number of hives, and also want to move them. When had I better do it. I intend to winter them in boxes where I want them to stand next Summer. Please auswer and oblige your subscriber,

> J. P. Sanuer,
> Kinsale P. O., Ont.

The best time to double up bees is difficult to state.. In our estimation if
the colony is strong enough to cover five to six Langstroth frames, we should say the best time to do it , is to not double up at all. A colony strong, above the average, we think all things being equal will not winter as well as an average colony. Thegreat question as to bees would be, are they old and worn out or young and vigorous? If the latter, do not hesitate aboul letting them remain undivided. The queen should next be considered, choose the best to live. If you have more bces than you can manage to winter, get rid of them in the most merciful manner you can devise.

If the colonies you wish to unite are very weak or you insist on uniting them in any case, do so at once, it is more easily done during a honey flow. I should take the queen away from both twelve hours at least, then unite, placing alternating the frames of the two hives with adhering bees, give them a good smoking and introduce the queen you wish to retain in the same way you would introduce a strange queen. Of course we take it for granted you have gradually moved the hives until they stand side by side ; move the new colony on the spot the two hives joined on.

You evidently intend to move the bees this Fall, you do not state distance, if several miles, any time, the sooner the better; the locality not differing. If you only want to move them a few yards do so gradually and at once. The distance you can move them at once depends upon ist, how often they fly in and out: 2nd, the distance between hives; 3rd, if backwards, forwards or sideways. In the first case the oftener they fly the oftener you can move. In the second if ten, fifteen feet you can move longer distances than if three or five. In the third if backwards you can move further than if forwards. In any case let bees have a good rest before they settle down for winter.-Ed.

## The Tri-State Premium List.

## APIARY.

Dr. A. B. Mason, Superintendent.
Entries in this Division close Monday, September 9th. Class 56-Bees and Huney.
Colonies must be exhibited in such shape as to be seen on at least two sides.

1st 2nd

1. Most attractive display of Comb Howey, §8
2 Mostattractive display of Extricted Honey,
2. Display of Comb Honey, not less than 10 lbs , in best shape for shipping and retailing,
3. Display of Extracted Honey, not less than 10 lbs., in best shape for retailing
$3 \quad 2$
4. Colony Italian Bees, $\ldots$... 4
5. Display of Bees, .... 42
6. Most attractive display of Beeswax,
7. Display of Queons, put up in shape as to be readily seen by visitors,

> Class 57.-Apiamian Supples.

1. Comb foundation machine, 4 . 2
2. Comb foundation for brood chamber made on grounds,
3. Honey Extractor,
4. Machine for making holes for wiring,

21
5. Largest display of honey bearing plants properly named and labeled,
$4 \quad 2$
6. Best display of Aparian supplies, Diploma.
7. Huney vinegar, nut less than 1 gallon, to be exhibited in glass, $\ldots . .2^{-} \quad 1$
For further particulars apply to Dr. Mason, Auburrdaie, Ohio, U.S.

## Answers to Queries for Soptember.

No. 79. What thickness of straw or chaff packing, or dead air, would be required for protection round a hive, with the temperature at zero or a little below? Would an arrangement that gave three inches of dead air round the sides and ends of the hives, and room for a cushion five inches thick over the frames be sufficient?
It all deponds on how long it remains at
zero or a little below. If for a very short time it might do, but if for a long period it would require from 4 to 6 inches of chaff or sawdust packing.-C. W. Post, Murray, Ont.
In my own locality where the thermometer often goes $10^{\circ}$ below zero, I have wintered safoly in single walled hives 多 of an inch thick. My preference is a double walled hive with $1_{\frac{1}{2}}$ to 2 inches air space, chaff packing I should use.no thicker than as above stated for dead air space. I think the conditions stated in second part of query would be sufticient for safety, everything else being all right.-J. E. Pond, North Attleboro'.
This question is too indefinite. That the temperature goes to zero matters little-how long it remains there is important. The general character of the winter in point of continued sererity and one's experience must decide the question. With me chaff hives are no protection.-R. L. Taylor, Lapeer, Mich.
Three inches of chafl will be enough, but three inches of dead air space giveslittle protection, according to my experience. " This may be because I make my winter cases out of thin ( ${ }^{3}$ ) stuff. Perhaps inch boards in a winter case would do better, but they cost too much here.-Dr. Tinker, Ohio.
No experience.-A. D. Allan, Tamworth, Ont.

Have had no experience in out door winter-ing.-Rev. D. P. Niven, Dromore, Ont.

Three inches of chaff packing around the sides and ends and 2 inches on bottom with a chaff cushion from 2 to 4 inches thick is sufficient for out door wintering. No, a dead air space is butlittle better than none. - Frank A. Eaton, Bluffton, Ohio.

Three inches-as a general thing, yes, though it depends sqmewhat upon your latitude. A dead air space is not so warm as packing.-Will M. Barnum, Angelica, N. Y.

From three to six inches. The arrangement fould do very-well providing it was really air tight.-Dr. C. C. Miller, Maringo, III.

I have had very little experience with outside. wintering, but certainly think three inches dead air or chaff packing is quite sufficient. Think three or four inches loose chaff over the frames better than none.Robt. H. Shipman.

Three inches at sides and six or more above. You cannot get a dead air space, if you could cheaply it would be enough.-ED.

No. 80. How many banda should a pure Italian worker bee show?

Three bands.-C. W. Post.
Three bands always, some do not show them fully unless filled with honey.-J. E. Pond.

Three yellow bands, more or less distinct.
-R. L. Taylor.
Three segments of the abdoment should be yellow, but the third segment in some strains does not show except the abdomen is distend. ed.-Dr. Tinker.

Three.-A. D. Allan.
Three I have always understocd.-Rev. 1 . P. Niven.

Three. - Frank A. Eaton.
Three, or more, of a grolden yellum color.

- Will M. Barnurn.

Three.-Dr. C. C. Niller.
They should have not less than three yellow bands.-Robt. H. Shipman.

No. s1. What constitutes a pure Italian bee ?
Now I am cornered, I don't think that any person can tell a pure Italian bee from sight alone. I have purchased selected, tested Italian queens to breed from and their progeny seemed all that could be desired and I could not get a queen from her that would show the characteristics of an Italian bee, and not one out of ten would show three banded workers although my drones were fine.-C. W. Post.

Being the progeny of a pure Italian queen fecundated by a drone from a pure, and purely fecundated queen.-J. E. Pond.

I should call a colony all uniformly marked as indicated in my answer to No. 65 and having the cther characteristics known to belong to that race, pure Italians.-R. L. Taylor.

A bee descended from the so called Zigariay or Italian stock. The Italian bee does not breed strictly to a type but varies from the dark or leather colored to a light yellow. The former are considered the best workers. -Dr. Tinker.

A native of Italy or descended from Italian stock.-A. D. Allan.
The progeny of pure Italian parantage. Frank A. Ezton.

Will not say, having never studied the different races of bees.-Kev. D. P. Niven Dromore, Ont.

See answers to query No. 80. -Will M. Barnum.

One which comes from a mother whose worker progeny all show three yellow bands. -Dr. C C. Miller.

A difficult question to answer. I would consider a colony of Italian bees, one in which all the worker bees showed the three yellow bands.-Robt. H. Shipman.

One from a mother whose worker progeny shows three bands when filled with honey.

Sessonable "Look Otrs."-Lnok out and don't leare a comb of honey leaning against the hive orer night, nor a cover not tightly fitting. Look out for that hones-house door. Put a sign on it in big letters, YOU shut THE wook. Look out for the entrances of small nuclei. Look out when robbers get started while jou are working over a hive. Close up and go to another part of the apiary. Lastly, take a lookout over the apiary to seo if all is well. Leaving a comb outside by mistake, may result in a horse being stung, and the loss of the horse, or, possibly the loss of human life may follow. I have just had a tussle with " old Charlie" because one of the boys left a comb leaning agrinst a chaff hive over night. -Gleanings in Bee Culture.

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