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## The Southland queen. Vol. I, No. 6 October 1895

Beeville, Texas: The Jennie Atchley Company, October 1895

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Vol. 1. No. 6.

Oct. 1895.



THE

# SOUTHLAND QUEEN.

A JOURNAL DEVOTED TO THE BEST  
INTEREST OF BEE-KEEPERS EVERYWHERE.

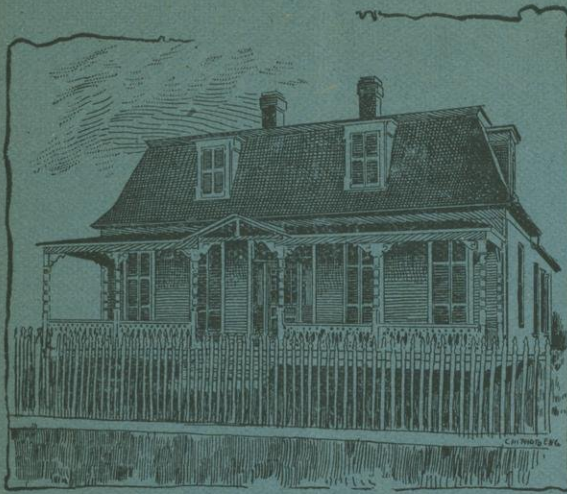
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WEEKLY PICAYUNE BOOK PRINT,  
BEEVILLE, TEXAS.





A RESIDENCE IN BEEVILLE.

## BEEVILLE.

South West Texas.

THE SUNNY SOUTHLAND.

**H**IS is the natural home of the Honey bee, the Grape, the Strawberry, and all the vine crops.

The land of the "BIG WATER MELONS." Fine cattle and horse stock raised and developed here cheaper than any other place on earth.

This is the natural health re-

sort for people from the malarial districts further East, and for the weak lunged invalid from the North.

Positively free from marshes, lakes, lagoons, or any thing of a malarial breeding nature.

BEE County is filling up with a thrifty class of whites, who came mostly from the

Middle, Northern, and North Western states; being the more enterprising, and, seeking new and fresher air to breathe than is found in the populous districts back East, he comes to the Beeville region to cast his lot among a thrifty class of people who have preceded him, and who are nearly all strictly a white population.

Bee keepers are no exception to the rule, and they, too, are coming in large numbers, to gather the beautiful harvest of sweet things which await them.

For further particulars, write to T. J. Skaggs Real Estate Co.

Beeville, Texas.

# The Southland Queen.

MOTTO; FAIRNESS.

Vol. I.

BEEVILLE, TEXAS, OCTOBER, 1895.

No. 6

Lovely weather just now.

Milano, Texas, November 16th.

After this issue of "The Queen" is out, look out for improvements.

All we need now to shove "The Queen" fast to the front, is the co-operation of the bee-keepers.

The live-oak honey that the bees are getting here at this time, is too thick to be extracted; so thick it is almost wax.

Do not fail to send in your reports, either encouraging or discouraging, as we want to get both sides, and then we can draw a true picture.

We started "The Queen" during the worst of our financial panic, and if we hold her head up and improve her before she is a year old, we are satisfied.

If you are a honey producer, it will not pay you, as a rule, to try to winter colonies too weak. Better unite them and have all good colonies in the spring.

Good comfortable and dry hives with plenty of stores and a moderately sized colony of bees, is all we need in the South to carry the bees through the winter O. K.

If you wish to know any thing about bees that you think would likely help you along, let us know what it is, and if we cannot answer you intelligently, we will find some one that can. So come ahead and let's have a regular bee-convention all the time.

We have not had any rain for some weeks, and we had rather not have any now, or till after Christmas, as it would be better for bee-keepers for it to remain dry till Spring and let the bees have a rest spell, and then a good Spring rain would make them boom.

As usual, some are complaining that their queens do not lay when introduced at this season. Please remember, that queens introduced at such times as when bees are not active, or not gathering honey etc., or when the weather is cool, will not begin to lay till new pollen and warm weather comes.



## Queen Rearing.

By

WILLIE ATCHLEY, Beeville, Texas,

— AND —

C. B. BANKSTON, Chrismian, Texas.

Well, as I promised to tell the readers of "The Queen" how I managed the four rearing yards that I have had to manage this season, I will do so in this lesson. I have all my breeders at home, and have all of my cells built in the home apiary, so that I can look after them at the proper time, and that I can start them at the proper time, so you see, by having all of this done at home, or at one place, I can rear cells enough for several out yards with the same trouble that it would take to rear cells for one yard, provided I have enough strong colonies to build the cells, which I try to always have. When the cells are ripe or ready to hatch, I have a small box, made for carrying cells to out yards. It is something like a cigar box, with the top full of holes just the size of a queen cell, which is about  $\frac{3}{8}$  of an inch. I place the cells in these holes and cover them with lint cotton, and by this way they can be carried quite a distance without injuring them. I also have a queen cell nursery, for keeping queen cells when I get more on hand than I have nuclei for. I make it as follows; a cage, 3 inches long, 1 inch thick, and  $1\frac{1}{8}$  inches wide,

with a  $\frac{1}{2}$  inch hole in one end, where the queen cell is placed. In the other end a  $\frac{1}{4}$  inch hole, to hold a small amount of food for the young queen when she hatches, in case the bees do not feed her. I make 2, one inch holes in the center, clear through the cage, with wire cloth on both sides, so the bees can get to them to keep them warm. A Langstroth frame holds 12 of these cages, which are put in the frames lengthwise, with the point of the queen cell down, in the same position it occupied on the comb, this frame, with the cells, is placed in a strong colony of bees between two frames of brood, where they are kept the right temperature, and by this way I believe they hatch better than if put in the nuclei. When the cells are placed in the cages, I never put any bees with them, for sometimes they will cut the queen cells down, trying to get out of the cage. By having my breeders at home, I have to carry the drones to the out yards, as I hardly ever let any drones hatch in the breeder's hive, and I carry them just before hatching, as it is much easier to carry them before hatching than after. At night I dip all of my queen cells, and fix the cages for shipping queens. This gives all of the day to work in the yards. Rearing the cells and moving them is the biggest job of the whole business, but I can, in this way, attend to all of these yards without any help. I



don't think I could do it and have the cells reared in every yard, for I do not think that I could move them or start them at the proper time, because they would be at so many different places that I couldn't get around often enough. I try to make every yard a visit twice a week, and put in cells, cage queens, give brood to the nuclei that need it, etc. If any of the readers have had the same experience in running queen rearing yards I would like to hear from them and learn how they succeeded.

WILLIE ATCHLEY.

In order to have good queens, much depends on the way the cells are built. If you are not an experienced queen breeder, I could rear a batch of sorry cells right before your eyes and you would not know any thing about it. I do not believe it makes much difference in what way the larva is given to the cell building stock, whether by the Alley method, the Doolittle method, or by the Willie Atchley method. I have reared some queens by all of these plans. The main point in having good queen cells built, is in having the larva of the right age, and the cells built by colonies in good condition. The larva should not be more than six hours old, by any means, yet some writers on bees say that they have had good queens reared from larva from 2 to 3 days old. I could

give the names of the writers but it is not necessary. When some men get rich they can say just what they please, and, like the little boy, "it is so if it aint so, because ma said it was so." Such statements are misleading and should never go into a bee Journal uncorrected. I read once from a big writer, that laying queens would never fight. Any man who has any experience with bees, knows better. We should all feel proud of The Southland Queen, for its editor knows her business, and will not allow any stuff like the above to go into it without a warning word. Cells should be built by strong colonies, and these should be in the very best condition, as I have stated. If honey is not coming in, they should be fed till the cells are sealed. I do not think that more than fifteen cells should be built by one colony at a time. There is one advantage in Willie Atchley's cocoon plan, and that is; the little larva is not so liable to get stunted before the bees begin to feed them. It only has this advantage over the Doolittle plan, and where the larva is transferred with a stick. With the Alley plan the larva is not removed. The only advantage Willie's plan has over the Alley plan is the strength of the cell. If the larva is transferred to the cell cups, and immediately placed in a colony, all ready to receive them, I do not



think that they will be seriously stunted. I like this plan better, because it does not necessitate the cutting up of brood combs. I never did like the Royal Jelly plan, the bees will accept the larva as quick without it as they will when it is used. The Doolittle cell cups are a great invention, but it takes a good strong swarm of bees, and plenty of honey to rear good queens in them.

C. B. BANKSTON.

#### A CARD.

In taking charge of the printing of "THE SOUTHLAND QUEEN," I would ask you to not expect too much of me at the start. Having had some experience in queen rearing, I am justified in saying that it is a business which requires considerable tact, as well as patience and energy. This Queen, however, is well started, and in the hands of good managers, and I feel confident that in due time you will be proud of her, even if she is not imported stock. THE SOUTHLAND QUEEN is edited by those who have been raised in the yards with bees, and are not advocates of theories alone, but will present to their readers such matter as has been proven. We will improve "The Queen" just as fast as possible, so please don't expect any thing more.

Yours For Success,

J. O. GRIMSLEY.

Mrs. ATCHLEY:— You request us all to ask questions, so here I come with enough for one scholar I guess.

First, please write us up a complete history or description of that V shaped hive. It has taken my fancy as being the thing we want.

Would you advise beginners to start with 8 or 10 framed hives?

If you could not get honey to feed bees, what would you use?

Why is it, if Holylands are the best honey gatherers, that we do not see more of them, and more of the queens? Are they so very cross?

I noticed in one No. of The Queen, you mention plaster of paris hives; how about them?

I hope these questions will not cause the Queen to swarm out, but it looks as bad as swarms to me. This is a swarm of questions going into the Queen's hive.

G. GILMAN BARKER.

Yalaha, Fla., Oct., 7, 1895.

FRIEND BARKER:— We will try to describe the V hive so you can make it. Our boys have named it the Ash hopper hive. They have no bottom board; the bees enter at the bottom the same as any other hive. We have an entrance  $\frac{3}{8}$  inch wide, clear across, or the whole width of the hive. One of the side boards is cut 2 inches longer than the other, and when nailed up, it gives a good alighting board. We nail on 4 legs to hold the hives up straight and level, and arrange the legs so the hives will be 2 to 4 in. from the ground, or higher if you so choose. If you use 10 framed hives, they are made to take regular 10 framed supers; if 8 framed



hives are used, then 8 framed supers fit on top, either section supers or extracting stories. The common standard supers are all right, and no part of the hive is changed, except the ash-hopper or V is used under all hives, for cleaners. No dust, dirt or trash can accumulate, as it all drops down and runs out at the entrance, and the wind blows it all away, so the hives are always clean and neat, even where occupied by very small nuclei. We just had to invent something to prevent our nuclei from being eaten up by moth worms, and these fill the bill to a T. We had often tried raising the back ends of our simplicity hives, to have the trash run out, but we found that there was an accumulation and a good nest for Mr. Moth. If 10 frames are used, you have as much room in the ash-hopper as 5 L frames; if 8, then 4 etc. We winter our bees in them O. K., and they are actually just the thing to winter nuclei or small colonies in. The bees can cluster to better advantage. The bees seem to delight in building combs in the V frames, as they are more the natural shape of a cluster of bees than any frame we have ever saw. The frames are made of only three pieces; top bar and two angle or side bars, which are groved together at their lower ends, and tacked. The upper ends fit in a V groved cut in the top bars, and they are stout,

easily handled, and the easiest frame to find queens on we have yet tried. In case of robbing, we contract the entrance with blocks, or any thing that will close them up the same as other hives. If there is any moth proof hive, we think the Ash-hopper is that hive. We have often used the V frame in common hives, when we were out of ash hoppers, and there was no trouble occasioned by it, but as soon as we could get ash-hoppers ready, we removed the bees into them.

We now always advise beginners to start with 10 framed hives, if they live in the South, as such hives have given better results for us.

If we do not have honey to feed with, we use sugar syrup.

The real merits of the Holyland bees were overlooked, because of the sting scare, and before we knew it there were no pure Holylands in the United States, that we could find, and we sent to Palestine for a new start, and find them no more troublesome or spiteful than common Italians, or the ones we have are not. They are simply the best honey gathering bees we ever expect to get, and we hang to them because it pays us to do so. The large honey producers know it too, and we have not offered them for sale as we wished to raise honey with them, and sell Italians, as they seem more generally liked.



We suppose that the general bee-keeping world have settled down pretty well on the Italians, hence we do not advertise Holylands, then, we want to get a good start for ourselves first.

The plaster of paris hive, we do not think will ever be much used, but we think they would be all right. We have heard that such hives have been tried more than 20 years ago, and abandoned.

The Queen is not frightened at all at your questions, as she is used to such swarms. Before us are hundreds of questions, and the queen is as quiet and will try to move along and give place to them all, by and by.

When using the V shaped hives, and they are not large enough for a prolific queen, just set on a full sized upper story and let her have all the room she wants. In our honey yards we use the V hives as cleaners and we use as much room above as the strength of the colony will permit.

JENNIE ATCHLEY.

### Virgin Queens Hard To Introduce.

When you introduce a queen at this season of the year, and the bees accept her O. K., you may be pretty sure that she was a fertile one, as virgin queens are hard to introduce at any time of the year, and exceptionally so at this season.

### An Interesting Letter From Kansas.

MRS. JENNIE ATCHLEY:—

I am very much interested in your "Lessons," and take the liberty, or rather accept your invitation to send comments thereon.

I am quite sure your advice in No. 2 is safe and practical for North as well as South, and I first learned to handle bees well up in the North, where the thermometer often registered 40 degrees below 0; and where I am, it runs to from 104 to 106 degrees above not unfrequently.

I do not think it wise to have a colony raise a queen early in the season, certainly not before drones are flying. It pays me better to send South for queens at such time.

We do not find in practice that it is wise to give our bees either empty frames or starters—they build too much drone comb. Better give full sheets of foundation if you do not have drawn worker combs.

We very seldom cut queen cells at all. The first queen that hatches, usually attends to that, and saves us that labor. In our apiary the per cent of natural swarms cast in the past 4 seasons has been less than 4 per cent, and our experience along that line is on a par with that of our friends over in Colorado.

We run our apiary almost exclusively for extracted honey and our methods of manipulating for increase and rearing queens are not practicable to any great extent for the production of comb honey. We raised all the brood (except the one comb upon which the queen is found) into the super, using a queen excluding honey board. When the supers, also the brood nest is full of brood with a laying queen in each, and we find it inconvenient to give the necessary room for surplus, by reason of



the great hight of extra supers, then we separate them. Have at present writing, three laying queens in the same hive, to wit; mother and daughter, laying each on the same comb in the brood nest, and another daughter laying in the super, a queen excluding honey board being used to keep the two young queens from quarreling. This is not uncommon.

That plaster of paris hive is not new. Some 20 years ago a gentleman directed my attention to it and its advantages but I have never tried it. It was claimed at that time that a party in Iowa had taken out a patent on it.

This Spring I put a daughter of one of those queens you sent me two years ago, into a long hive, containing 16 L frames. She filled 15 frames with brood and one side of the 16th, and then I commenced using her brood to build up certain weak colonies, etc.

I will, one of these days, send you a report of the doings of that Carniolan queen with one pound of bees and one frame of brood, received from your apiary on 3rd of May last. I like Carniolans very much, and have the yellow, from Mr Alley, as well as the gray, you sent. Tried the Holylands some years ago and did not like them over much, and A. I. Root, of whom I purchased them, wrote me when he sent them that he did not think I would like them.

Have had better success so far as the production of comb honey is concerned, with "mongrels," and some years ago wrote them up in GLEANINGS, under the title of "American Bees." Quite a number of successful bee masters advocate similar ideas at the present day, and with further experience, I have not changed my mind. It is all nonsense about hybrids (high bred?) being cross. The meanest bees that I ever tried to handle were sold to me for pure Italians, the first that I had ever seen, and the

meanest colony of bees in our apiary today, is a colony of high toned, very pretty dagoes or Italians.

When those Carniolans you sent me casts a swarm, if they ever do any such a thing, I will let you know.

Bees doing well. Abundant rains this season. Yours Very Truly,

JAMES H. WING.

Syracuse, Kans., Aug. 12, '95.

We are glad you have enlightened us concerning the Plaster-of-Paris hives.

Yes, a great many honey producers prefer hybrids. We like the Holylands, and, we believe they are the best honey gathering bees extant, none excepted.

#### A Beginner.

DEAR SOUTHLAND QUEEN:—I have just received the June, July and Aug. Nos. of The Queen, and have been putting in my time like a hired man on double wages, reading and studying the same. To say I am doubly pleased with it is very mild. I think every bee-keeper in the South ought to double their efforts to make The Queen second to none in our fair Southland, or any where else, as for that matter. I shall try to help it in this part.

We have had a fine rain here, after a continued drouth since about the middle of June, and the prospects are favorable for a honey flow from our celebrated Bee-brush (for it blooms nearly every month in the year, if we have rain,) and many other fall plants.

J. A. COURSEY.

Click, Texas, Sept. 30, '95.

Glad to note your appreciation of The Queen, and hope your efforts for us will be a success.



### Coming South.

MRS. ATCHLEY:—Will you please answer me a few questions in The Southland Queen?

I want to move south for my health, as I cannot stand the cold winters we have here.

Have you a good honey market? Also have you a good poultry market?

We had a drouth here this year again, and added to it we had a hail storm.

I had fifteen colonies to start with last Spring, and have increased to twenty one. We had to feed during the Summer to keep the bees from starving, still, I harvested 1100 lbs. extracted honey, gathered from Heartsease. The flow only lasted about three weeks.

I wish to start south by Dec. 1st. I received The Southland Queen all right.

JACOB HETRICK.

Wahoo, Neb., Oct., 7, 1895.

FRIEND H.—We will gladly welcome you to our "Sunny Southland" clime. There is lots of room here for bee-keepers. We have good markets, both for honey and poultry.

We think you did well, after the drouth and hail storm. We seldom have hail in this latitude.

### Well Pleased.

MRS. JENNIE ATCHLEY:—I have received The Southland Queen, and have read them with avidity. I am in the bee business in the old fashioned style, but I wish to transfer my bees next Spring, into the Dovetailed hives. I always rob my bees in February, when the elms bloom. Do you think this would be too early to transfer?

We have a heavy honey flow here this Fall, first from honey dew, and now

the honey is spewing out of the live-oak balls so it glistens in the sun. If I should say that there is a ton of honey to the square mile, I might not miss it much. I send to you by express, bees wax, which please to give me credit on my subscription to The Queen, for what ever it is worth. I am interested in the bee business, and hope soon to be in the business right.

F. S. ROUNTREE.

Harper, Texas, Oct., 12, 1895.

It will do to transfer your bees in Feb. if they are getting honey, and the weather is warm. I would not transfer in cool weather or when there is no honey coming in. Bees are hard to manage in cold weather, or when there is no honey coming in.

Can't you get some more bees to pick up that ton to the mile of honey, and save some of it?

## JUST LISTEN!

A new steam bee-hive factory. All kinds of bee-keepers supplies at low prices. Send for my catalogue that tells about queen-raising. I have untested Italian queens, \$1 each; \$5 for 6, or \$9 per dozen. Also Carniolans, same price. Tested 3-banded queens, \$1.50 each; 5 bands, \$2.50; and tested Carniolans, \$2. Full colonies of Italian or Carniolan, \$5 with untested queens. I make it my highest aim in a business life to please my customers and do a fair, square business. Safe arrival guaranteed on all queens and bees sent out. Queens can go by mail post-paid at above prices. Bees by express, you pay the express charges. Remember, we have been before the public for 15 years. Send us your orders. We have good shipping facilities, two railroads. Address

**The JENNIE ATCHLEY Co.,**  
Beville, Texas.



### Sending Queens A Long Distance.

DEAR MRS. ATCHLEY:— Your two kind and instructive letters of June 22nd and July 18th are to hand and I am thankful for the information therein contained. I will be very glad to receive your little paper, "The Southland Queen," from the first issue, so please send it on regularly.

I will eagerly look forward to the arrival of the queens you are sending in Sept., and trust the experiment will be an immense success.

Referring to water in cages, I am not decided whether it is essential but from the success I have had in importing from Italy, I am rather inclined to the opinion that it plays no small part in making the importation of queens a success, and when you consider that each shipment was exactly 42 days en route, you cannot wonder at my leaning that way. By way of argument, consider yourself first; when you take food you drink with it, and the warmer the weather the more you drink and if you are confined in, say, a railway carriage during very hot weather, you require some liquid to prevent unpleasant thirst. Consider the bees in much the same light. When they have liberty they have access to water and in very warm, dry weather, we find bees frequenting water-holes, etc. etc. in great numbers, you may say to thin the food for the larvae, but is it not reasonable to expect they require some for their own use? It is just during this warm weather that the nectar gathered is dense. Well, if water is needed when nectar is dense, how much more will it be necessary if honey alone is the food, especially when the bees are confined with hardly enough room to fan their wings. I know the bees will use water, for in my Italian impor-

tations very little honey was consumed, but generally both of the water bottles (there were two in a cage) were but half full on arrival; in some cages one would be nearly empty and the other almost full, showing that evaporation does not absorb much, but generally the amount of water used is equal to one bottle, which is  $6 \times 2\frac{3}{4} \times \frac{7}{8}$  inches in size. Again in your letter of July 18th, you say that you have a difficulty in getting queens through alive to Frisco, before Sept., on account of the hot desert, "unless we had some one along with them that understood it and would give water, or keep them in a cool place." If it is advisable to give water when crossing the hot desert, is it not equally so when crossing the hot ocean also, for the vessel is very much within the tropics the whole way, and probably the bees are in a warm part of the steamer.

Referring to the origin of the 5 banded bees, perhaps I can throw a little light on where the color comes from. I have no doubt you had queens from Italy many years ago, and if you consider, will you not say that the bees from those queens were very much darker than the bees from the queens received from there at the present time. I am informed that in a back number of GLEANINGS, Mr. Bianconcini, of Bologna, stated, that in order to improve the color of their bees, they had been introducing Cyprian blood. I know that the Italian bee, bred from Italian imported mothers, is much lighter in color than it was five years ago. Considering the above as facts, the Italian bee is now an hybrid, if it was not before, and is therefore liable to sport, and by breeding from the most golden bees for several generations, a bee is produced in color similar to its ancestral parents. I am fully aware that inbreeding is resorted to, very much, to produce color when we find a tendency in our bees to sport that way, and the taking



so much advantage of this, has no doubt weakened the constitution of many of the golden bees, which makes them less able to resist disease, and less useful as honey gatherers. Hence, the reason so many are going against Golden Italians. But if color is obtained by crossing different strains of bees, all having the tendency to sport that way, or, even by direct crossing with another variety of bees, as Cyprians, I think a superior strain should be produced, both in color and honey gathering qualities. Do you not think the above accounts very much for the color in the Golden bees?

Referring to the cages, I do not know of any further suggestion to offer, and by the time you receive this, the queens will probably be started. I will await the result of the present experiment and will then criticise results.

Our spring is very late this year, bees generally commence building up in July and we have swarming about Sept. 15th to 30th. This year some queens had not commenced to lay on August 15th. We had a very cold winter, with severe cold winds, and up to the present time the wind has been too strong to allow much activity about the hives. We have had no rain in any quantity since January. All vegetation is so dry that very little sets it on fire. One bush fire started last Sunday, not far from my home apiary, and burned up every thing before it for about 30 miles, of an average width of from 6 to 10 miles. Fruit bloom is also late through want of rain. We have a very good promise of a good season at my out apiary, unless the bush fires destroy the buds which has been hanging on the trees since last April, we expect it to bloom in November. Spotted gum showed buds in March last, this we expect about April or May next year.

I am a great believer in change of blood, and quite averse to inbreeding.

I regret to learn you have had sickness in the family, and trust long ere now, all are quite recovered.

I remain, Yours Truly,

W. S. PENDER.

W. Maitland, Australia, Aug. 28, '95.

BRO. PENDER:— We quite agree with you that bees need water when sent such long journeys as they have to make from here to Australia. Your argument is sound, and I reopened this subject some time back, in GLEANINGS, that I thought it was essential to supply bees with water when sent across the oceans in warm weather. Yes, I do believe the old bees need some water to quench their thirst, much the same as we do when we are subjected to hot weather. I notice too, that when the weather is very warm, the bees need a moisture to keep, or help keep down the inside temperature of their hives. I often open hives in hot weather, and find water standing in the checks over the sealed brood. You know that where there is moisture, a circulation of air will hold the temperature down much lower than if all is dry.

I also agree with you in your argument about yellow bees. I have produced very yellow bees by crossing the Holylands with Italians. I think the arguments now going the rounds of our bee papers, against the yellow bees are unfair. They should take into consideration that there are good and bad among all strains of bees.



**Drones From Worker Eggs.**

THE JENNIE ATCHLEY CO:—

I have a lot of drones reared by working bees, and I want to know if they will do to mate with the queen. Please answer as soon as you can.

Yours Truly,

T. S. ELLIOTT.

Hogansport, Texas, Oct. 15, 1895.

FRIEND ELLIOTT:— I do not think drones reared from worker bees will do to breed from, they are usually too small and weakly. I do not believe I would risk them.

CHAS. ATCHLEY.

**A Peculiar Express Line  
In Mexico.**

I must tell you how proud I was when the nucleus arrived and I found a beautiful queen alive and well. I had given up getting a queen alive, as I had invariably received them dead, by mail, till you advised me getting a nucleus. The nucleus left Beeville by express on 9th of Sept., arrived at Chihuahua City on 12th., thence to Guerrers, on stage, 200 miles, thence on an Indian's back, a distance of 300 miles, arriving here on the 22nd, being 13 days in transit. The Indian only charged me \$2 00.

Please send me every issue of "The Southland Queen," as I am going to keep after you till school is out, as I do not wish to lose any lessons.

DR. W. M. STELL.

Jesus Maria, Mexico, Sept. 30, 1895.

We do not believe in editors of bee-papers using the reading pages of their papers for advertising, any more than they would do for other people, but we wanted to let our readers know how Dr. Stell man-

aged to get his bees. Just think of an express line 300 miles over steep mountains, and on the back of an Indian. Mountains too steep for horses or stage to pass, then only charged \$2.00 for the freight, about 15 lbs. We give the above, that our readers may know where bee keeping is extended to; 500 miles from railroads, and over mountains too ragged for a stage. Dr. Stell sells his honey over there at \$1.00 per pound, and says it is a fine bee country.

Send us in some subscriptions this month, can't you?

**Gold Standard Italian**

And

**FREE SILVER GRAY CARNIOLAN**

QUEENS will go from now until frost for: Untested, 55c, 6 for \$3; Tested, \$1. 2 for \$1 50. Untested Italian of the 5 banded strain, warranted purely mated. Address

**C. B. BANKSTON**, Chriesman,  
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Your orders solicited on hives and supplies; 5 per cent discount till Dec. 1st. Roots dove-tailed hives, at Roots prices. Frames with slotted comb, guides and thick top bars. Dixie hives at 10 per cent less than Roots prices on dove-tailed hives. Patronize home enterprise. (Money order office, Byhalia.)

**W. T. Lewis, Watson, Miss.****100 Hives of Bees.**

We have to offer you 100 hives of good Italian Bees in Chaff hives, and a good house and lot and excellent well of water in Bee county, Texas. This will be

**A Bargain** for some one. Write us  
**The Jennie Atchley Co.**



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## THE SOUTHLAND QUEEN.

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JENNIE ATCHLEY, Editor.

WILLIE ATCHLEY, Associate Editor.

E. J. ATCHLEY, Business Manager.

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### Terms of Subscription.

One year, in advance, - - \$1.00  
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This is a Monthly Journal Devoted to the Honey and Bee Interests of this Country, North and South, East and West, and we will not except any of the rest.

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Address all letters to

**THE JENNIE ATCHLEY Co.**

**BEEVILLE, TEXAS.**

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Entered at the postoffice in Beeville, Texas, as second-class mail matter.

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BEEVILLE, TEXAS, OCT., 1895.

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Rev. L. L. Langstroth died on the 6th Inst. while preaching to an audience. He was at the time sitting in a chair, on account of being weak. He had been feeble for some days and had suffered from colds. The immediate cause of his death very likely was heart trouble. We suppose that most all bee-keepers that have read the bee-papers are familiar with the name, Langstroth, but for the benefit of those not acquainted with him or his writings, we will say that he was likely the greatest benefactor the bee-keeping fraternity ever had. Father Langstroth, as we older bee-keepers knew and called him in his declining years, will remain a household word through future generations, as his writings, especially his book is a

standard work on bees, and we are now of a firm belief that his frame, so common among bee-keepers, will remain the standard for all time to come, as it seems to be nearer right for all general purposes the world over. His last words were uttered, telling his hearers about the love of God. I will venture one word for the world, and say that we as bee-keepers of the WORLD, breathe a deep sigh of regret for ourselves, as well as sympathy for the near and dear ones he leaves behind.

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Don't forget the time and place of the Central Texas Bee-keepers' Meeting. This association meets at Milano, Tex., on Nov. 16, 1895, and all that can do so consistently, should attend and let us push bee-keeping along with other enterprises. Any information desired, concerning the meeting, will be cheerfully given by that whole-soul bee-keeper, C. B. Bankston, Chriesman, Burleson Co., Texas.

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If frost stays off as it often does, till Christmas, the bees in this country will go into winter with great big stores, and then they will come out booming when winter is over, about February 15th.

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With this issue we are caught up again, and we hope hereafter we will be able to get THE SOUTHLAND QUEEN to you on time.



Bro. York, of the American Bee-Journal, writes us that he is not in the supply business, as we stated in last issue, and says he is only manager of that branch for The A. I. Root Co. This Company having bought the stock of supplies owned and operated by Thomas G. Newman, and secured the services of Geo. W. York to look after their business at Chicago. Good man for the business, and an item to be considered in freight rates for all bee-keepers living on this side.

Bees are now gathering some honey with us and have been for some time. We have had an unusual fall, and the whole landscape is now like a flower garden, and the bees are doing all they can. The honey is standing out in great drops on the live-oak balls and the bees seem to like it early in the morning, and when the day gets warmer they quit the balls and go for other honeys, such as white brush, prairie or broom weed etc.

We have a great big stack of good matter here waiting for a place, and we will get to yours soon, and all bee-keepers that write for this paper concerning their bees, hobbies, fixtures, questions, and things of interest, can rest assured of seeing their letters in print, as that is what this paper is for. Give ALL a chance and learn from eachother.

We ought to have our Southwest Texas Bee-keepers' meeting before the year runs out, and it is high time we were getting at it. We were to meet at Wharton, at the apiary of W. O. Victor, and he expressed a desire to have the meeting postponed for a while, as that time would be in the midst of his busiest season. What do you say now Bro Victor, shall we meet in Dec. again? June was the time set for our next meeting.

Still, we see by the last "Gleanings," that Bro. E. R. Root is trying to sit down on the five banders, and can't. One of his neighbors runs up to him just as he is about to sit down, and says hold up, I have five banders and they are good honey gatherers. This, then, reminded Bro. Root that he also had some five banders in an out yard, and he then remembered they were good sure enough.

Do not forget to send in your report, along with your subscriptions. We want to hear from you all, and want all bee-keepers to read this paper, and then, wouldn't we have a big time?

The Texas State Bee-keepers Association meets at Greenville, Texas, on the first Wednesday and Thursday in April 1896.

W. H. White, Secretary,  
Deport, Texas.



Bro. bee-keepers, please remember that we can do job printing, and when you wish anything done in that line let us know. We can print your letter heads, envelopes, etc., or for queen breeders we can furnish you printed mailing cards with directions for introducing etc.

A few days ago one of our little folks was told to place the stamps in the drawer, with the faces up, so we could tell what denomination they were without turning them over. With a little tricky smile, the little five year old asked; do we have to turn people over to tell what denomination they belong to?

Extracted honey is selling on this market at 6½ to 7 cents per lb. Comb honey, 8 to 10. These are wholesale figures; retail prices are from 1 to 2 cents higher.

People wanting to come Texasward, are continually asking us how much honey they can get per colony if they should come here. We only have this to say; we get about 100 pounds per colony, spring count, for all good colonies, but we can't say that you would get a single pound, but you should judge yourself by what we have done, and likely you could beat us getting honey.

## PROFITABLE BEE-KEEPING.

### LESSON NUMBER 6.

#### DISEASES OF BEES.

Under this head I will take up everything known to be a disease of the honey-bee, together with moth-worms, etc. First, I will try to teach you what Foul Brood is. I will only give my own experience and views on this point, and try to explain, in as short a manner as possible, everything that has come under my own observation; and to do this properly, it will make a pretty long lesson of itself.

First, I will call your attention to the fact that foul brood is a catching disease. Where it started, no one as yet has given satisfactory proof. Let this be as it may, this disease has existed, and does exist to-day, and may always be at

work in some parts of the world, and is to be dreaded by an apiarist. To distinguish foul brood from other kinds of dead brood, I will lead you through a foul-broody colony.

Now, suppose we open up hive after hive till we come to a real case of foul brood, then I will stop and tell you what it is, and when we get through this lesson I am sure you will know foul brood when you see it.

Come, let us walk over to Tom's apiary a few minutes—he says his bees have foul brood. They are constantly carrying out dead brood, and lots of brood dead in his hives; it has been cool and rainy for some time, and wound up with a frost about a week ago, and Tom is



really discouraged and almost ready to enter "Blasted Hopes," or anything else that imagination will let him. But here he is at home to-day. Let us go in and examine his bees, and, if possible, lighten his heart.

"Good morning, Tom. We have come over to examine your bees, to see if they really have foul brood."

"All right; I will get my smoker, and will be very glad indeed to have you examine the whole 'shooting match;' and if my bees have foul brood, tell me what to do," says Tom.

"Well, here is a colony that something bad is the matter with. See all the dead bees piled out there!"

"Now," says Tom, "as I open the hive, you all look closely. Take this frame—what does all that dead and rotten young bees mean, smelling so badly, too?"

"That's no foul brood, Tom, and happens in almost all apiaries. You see, during that warm spell a few weeks ago, that caused soft maple to bloom right out, the queen just went to work and filled the combs with eggs, and they had too much brood when that cool, rainy weather came; and then you see, that frost and little freeze at the close of the rainy spell caused the bees to cluster in the center of the brood-nest, and their brood chilled, and now it has turned warm, and the bees are pulling out all the brood that is old enough to bear pulling; the small larvæ will have to rot and dry up in the cells, and then the bees will clean the cells all out, and the queen will deposit eggs in them, and soon the colony will be all right again, unless you let them run out of honey, as you see it has reduced their stores to rear those bees that got chilled, and all this is a dead loss to the bee-keeper. Spreading brood too early in the spring may bring about the same results.

"Well, Tom, I am glad to know that you have no foul brood—it is only a case of chilled brood."

"Well," says Tom, "I am sure my heart is much lighter now, and I will know next time that I have no foul brood when things turn out as they have this time. I thank you all for the information I have received to-day."

Now let us jump two months ahead, and this puts us up into July, and I hear that Dick has foul brood badly in his apiary, and there has been no cool spell this time, and we know that his is not a case of chilled brood. We will investigate and see, as the only way to determine anything is by close inspection. Well, I see Dick is also in his apiary, even if it is hot.

"Good evening, Dick; here is a crowd of 'foul brood inspectors' that have come over to see how much foul brood your bees have. When we heard it, we supposed your bees were just about all dead, and here you are extracting and taking off sections."

Oh, no! my bees are not nearly all dead; but my! the dead brood I find in some of my hives, and I am scared to think it is foul brood, as I have read so much about it.

"Well, Dick, we have been having very warm weather, haven't we?"

"Yes, yes; and I tell you I almost burn up here on this south hillside, too."

"We are in a kind of hurry, as nearly all bee-keepers are busy now, but we *must* take time to look up your foul brood business."

"All right," says Dick; "yonder is a hive that half the brood is dead, and the cells are all sunken in, and it smells badly. I am so sick about it, as that is just the way they tell me foul brood acts."

"Now, see that brood; see the cells all sunken down. Yes, give me that comb, and let me examine it. Well, Dick, you have no more foul brood than Tom's bees had; you see his was chilled brood, and yours is scalded brood. Your hives are here in this broiling sun, and they are very heavy with *solid* frames of sealed brood, and such sheets of brood afford a great deal of heat itself; that, together with our very warm weather, has caused some of the brood to die from the heat.

"Now, this may never be the case in the Northern States, or where the sun does not shine so hot, but here in the South we often have cases of scalded brood, but you have no foul brood, Dick, and all will be well as soon as the days are not so hot. See that water on the sealed brood there? That is to keep it cool. But the bees sometimes fail to keep the temperature down with water, and then we have some scalded brood. You are all right, you have no disease at all among your bees, and you can tell after this when you have scalded brood, the same as Tom can tell when he has chilled brood."

"Yes," says Dick, "but somebody says that dead brood causes foul brood—what about it, any way?"

"Oh, that's all right, Dick; any of us are likely to be mistaken in our views, and we may be mistaken in our views in this lesson about foul brood, but I will risk it that you will agree with me before we get through, that foul brood does not start from dead brood.



## FOUL BROOD.

We will suppose now that two more months have gone by, and this is Sept. 1st, and Harry has heard now that this school has its name up as foul brood inspectors, and he wishes us to go over and examine his apiary. So let us go over, for I hear his bees are nearly all dead, and he has no honey this year. He bought his bees last year from Mr. Jones, and somebody said that Jones lost all his bees with foul brood. I sent Harry word that we would be over today, and he will be anxiously awaiting us.

My! how solitary things look around here. Just look at the hives all turned up and stacked about in little groups. I am scared already.

"Good morning, Harry. The foul brood inspectors are upon you right now. Get your smoker, and let us see quick."

"Well, I tell you," says Harry, "we won't have much need of a smoker, as I have nothing much to smoke. But here, we will open this hive—I see some bees here yet."

"My! close it up. *Foul brood* in its worst form!"

"How do you know?" says Harry.

"Can't you smell that double dead odor—very sickening?"

"Now," says Harry, "just show us all about this awful disease right here, where we may all see with our own eyes."

"All right; I will do what I can to make it all plain to you, though I am a poor hand to explain things, but will take time and pains enough to show you all what foul brood is, and how you may all know hereafter when your bees have foul brood.

"Now, all circle around this hive, and I will lay this rotten comb down on the cover, and show you what I can. You see this is a bad case—foul brood in a malignant form. It has been in this apiary a year or more. Now, right here, in the center of this comb, is where it started, as you see this rotten, offensive mass. This disease was brought here likely when Harry bought his bees from neighbor Jones, and it began in hive after hive in the center of the combs, and spread like this one until you see there is only a very few cells hatching around the edges, and soon none will hatch at all, and they are gone forever.

"Now look at this rosy substance. See how it stretches; and see these sunken cells with a little pin-hole through the caps of the cells. These holes have been made by the bees, think-

ing to remove it, but when the cell was punctured, the sickening or disgusting smell caused the scavenger to back out from her job, and thus it goes on. Or the small hole may be caused by explosion, as the air-tight, or almost air-tight, cell may become so crowded with gas that a small hole in the weakest part of the cap (which is the center, as it is farthest from any supporting wall)—I am not going to say just what makes those little holes, but one of these ways seems most likely to be right. But we will pass on by *knowing* the hole is there, for we see it, as it is the things we *know* that we wish to teach.

"This dread disease is like yellow fever, or any other catching disease. It will take hold of its victim at once when properly exposed.

"Now, I will try to show you why dead brood does not produce foul brood."

"Yes, all right; that's what we are anxious to hear."

"First, let me give you the points I wish to make. We have *always* had dead brood, and we have not always had foul brood; as I know I can remember hearing father talk about dead brood, and I never heard of foul brood until after bees were imported to our American shores from distant lands.

"Next, foul brood is a walking or flying 'roaring lion,' blood-thirsty, and kills live brood, not caring anything about dead brood, nor would it ever spread an inch if dead brood was its only show. Its germs will no doubt live in dead brood awhile, but before it *can* start, or make one single bit of progress, it *must* have *live, fresh* blood to devour. It is the same with small-pox. What would you think of me, if I should say that dead body yonder will start small-pox? Why, you would likely say I was foolish, as you say small-pox travels through the living, and kills the living, and cares *nothing* for the dead, more than its germs will take hold of a live being, if such is exposed before the germs all die. But *never* will it hunt for another dead body to start again. It is the same way with foul brood. A common air-germ looks after a dead body to start and thrive, and will *not* take hold of decaying matter in freezing weather, nor will a dead substance decay until it is warm enough for air-germs to grow. I believe freezing will also stop the germs of foul brood. But I am not yet able to say that freezing will kill a foul-brood germ, but I know cold weather will check it, the same as common air-germs.

"Now, have I made it plain to you



that foul brood does *not* start from dead brood? Well, I will rehearse to you that foul brood has no such a germ as a common air-germ, nor is there any common air-germ that has any part of a foul brood germ about it, as the two are as different as day and night; and to close this lesson on foul brood, I will say that I will endeavor to give you its cure in a future lesson, if I can."

The next lesson will be on Bee-Paralysis or the "Nameless Bee-Disease." Then, before we get through with Diseases of Bees, we will take up every-

thing known as a disease, and treat it as clearly as we can. While I have not seen a real case of foul brood for ten years, aside from specimens sent me, I had a four years' siege of it, and lost 100 colonies of bees by it, and I tell you I learned something about it. I will add right here, that I am firmly convinced, by what I have read about foul brood lately, that it is of a much milder type than it used to be. It is said that the longer a catching disease runs, the lighter it gets. So foul brood may, and I trust will, play out ere long, and be remembered only in the past.

## LESSON NUMBER 7.

### BEE-PARALYSIS.

This disease seems to be next to foul brood, and causes the bees to dwindle very fast. I have not seen a case of paralysis for a long time, there being none in this part of Texas; but in north Texas I used to be bothered with it. There have been so many remedies offered, and none of them effectual, that I fear it will be only a loss of time to repeat them here. I believe that it is unwholesome food of some kind that causes it, as they seem to have fever, as they swell up, and their hair comes off. Now, you all know that any swelling is caused from inflammation, and a fever sets in, or any derangement of the stomach is likely to cause fever. So I suppose we had better name this bee-disease "Bee-Fever," as it goes without a name.

Next, is to find a remedy. Who will first find an effectual remedy is unknown, at present I suppose, but testimony should be in order from all directions until we find a cure. I will advise clean hives, dry quarters, and good food, as I stopped it in my apiaries this way four years ago, and have not had it since, but I could not offer this as a remedy, for nothing was done or given the bees except clean hives and new combs of healthy honey, and I prescribed the same for others, and it failed. So I offer this as a suggestion only, and not as a resolution or remedy. If any one cures bee-paralysis, please let us know how you did it, that we may let all know it.

Bees in Northern States do not seem to suffer as much as those in the South, from this disease, but I believe Mrs. Axtell told me she lost very heavily two

years ago by bee-diarrhea, and she lives in Illinois. She told me that she had to keep bottles of hot water about her bees to keep them from freezing, and dampness may have caused the disease in her case. It may be brought on by several ways. Bad food, cold and damp, or by too much pollen taken with honey. Let us all watch it closely.

### BEE-MOTH.

This could not be called a disease, but I wish to call attention to everything that destroys the bees. In Northern latitudes the bee-moth has but a short time to work, as it takes warm weather for them to thrive. Here in the South a queen-rearing yard, or any colony that is not strong in bees *all* the time, will be killed outright if not properly and promptly attended to.

There are two classes or species of bee-moth here. The small, or center moth, is very bad indeed, and sometimes injures our bees, no difference how strong they are. The reason I have called or named them the "center" or foundation moth is, they work right in under the base of the cell-caps, and web the young bees fast, and they can't hatch, but gnaw off their cell coverings, and just work like a lot of pigs trying to get out of a pen, until they die. So when you see a squad of bees with their heads all uncovered, and wriggling for life, you can pull them out and see the little moth-worm hop out. Then you will soon learn what a center moth is.

The old, big gray-back moths are known, I suppose, by every one that ever handled bees, so I do not think it necessary to describe them here; but



they are simply a large fly that lays eggs about the unoccupied part of the hives, and they grow rapidly, and soon grow to large, wrinkly worms that are very destructive, and it seems they just try to see how much comb they can destroy.

The worm itself is properly named "moth," as it can subsist upon anything that it can eat—dry, hard wood, and iron for ought I know, as it seems that nothing is too hard for them. But they seem to love pollen better than honey or comb, and quickly destroy old combs with pollen in them, if allowed to do so.

We make war against the moth, and kill them in many ways. Combs can be sulphured in a tight room, or soaked in water until all are drowned.

By all means try not to let the moths get a start on your honey, beeswax,

comb foundation, or in your hives, as damage will be done.

There are many and numerous enemies to bees, but I will not take space here to mention any more of them, but mention only those that kill the bees outright if allowed to run.

Foul brood, bee-paralysis and bee-moth—all these will surely "get away with" the bees by and by, if not cured. It used to be supposed that paralysis would get well of itself, but it seems now from the reports of this and last year, that when well started it only lets go when its victim is exhausted.

Now, I think we had better learn the best way to dispose of our honey, should we be fortunate enough to have a crop to sell soon. I will relate to you in the next lesson how I have *always* managed to sell all the honey I could produce.

## LESSON NUMBER 8.

### MARKETING HONEY.

As it is one trade to produce a crop, and another to sell it, I will give you my plans for disposing of our own honey, and I have *never* in all my life produced more honey than I could sell at a fair price, and, in fact, I never had as much as I could sell.

Now, if you are a beginner, you cannot afford to have any middle-men or commission business. When I say you cannot afford it, I mean from the standpoint of making your bees pay their own way, and something left to pay you for your trouble. You may be worth a million dollars, but I discuss this matter from a business stand-point, and I repeat, you cannot afford to put a small crop of honey out on commission, for you need every cent it will bring to start you off next year.

Well, to do this, take your honey right to the doors of the consumers, and weigh out just what they wish—from 5 cents worth up. Find out what honey retailers at in your town, and always sell goods at the same, as I do not believe in running down a honey market.

Then you can tell your customers who you are, where you live, and that your business is producing nice honey like this; and all this can be told while you are weighing out the honey, so no time is lost either by yourself or customer. And, bear in mind that it is no harm to

ask a big price, but awfully bad to give light weight or measure. So say to each customer: "See, there; I give you big, full weight, all nice, fresh honey right from the bee-hives—my own producing!"

You know it to be pure, so you need not be afraid to talk, and I tell you it will be but a short while until your market will hunt you up, and you will be planning how to best enlarge your apiary to accommodate your trade.

Now, I *know* all this is true, for it is pure, undefiled experience that I am giving you; and if you will follow my advice, I will insure you a market for all of your honey. If you have no town near you, go to a town to sell your honey, as people in towns and cities depend upon buying about all they get.

When you have run your apiary up to where you are a big bee-keeper, and can ship out honey by the ton, and have more honey than you have time to sell yourself, then hunt up a good, honest commission firm, and make arrangements to ship them all the honey that you do not sell at your own door, or by going to town and back.

Will you bear with me a little, when I tell you the way for a bee-keeper or farmer to do? If he or she wishes to mount above the obstacles of life, they should *never* go to town without taking something along to sell, unless when they go to church on Sundays.



All the little necessaries can be purchased for our tables, such as soda, pepper, spice, coffee, etc., and save the money to fit us up for another year. You will soon learn that you can sell almost anything you can raise on a farm—honey, eggs, butter or vegetables, chickens, etc., and as I said before, people that live in town will watch out for you, and as they buy all they get, they will soon become acquainted with you, and will know your team and wagon as far as they can see it; and by just a little trouble on our part, a trade can in this way be built up to take our honey or anything else we have, with but little time being lost.

Study your honey market as you do your bees and honey-plants, and learn how or in what shape your customers like their honey, and put it up to suit them, and you will soon be moving on as smoothly as heart could wish. But if we do not put forth an energy to get ourselves started out in the world, we had better not start at all.

Now, if one of you follows my instructions and fails to sell all your honey, will you please write me, and tell me on what part you made a failure? I will then see if I can suggest a remedy.

## LESSON NUMBER 9.

### HOW TO CURE FOUL BROOD.

Now, I have headed this short lesson "How to Cure Foul Brood," but I must confess that I do not know for sure whether my method will cure every time or not, but I lost 100 colonies down to four before I checked it, in the year 1880, and I have not had any in my apiary since 1883.

I may be away behind the times with my cure, but I hope to assist some one. I do not claim the cure my own invention, either—I believe it was at the suggestion of A. I. Root that I tried the plan, and it has been given lots of times, and it will not hurt to give it again.

I shook the bees all out of their hives into clean empty boxes or hives, and kept them shut up until they began to show signs of starvation, which was usually 36 hours. Then I put them into another clean hive on comb foundation, and on the second brood that was reared in these new combs, I found a few cells of foul brood. I just treated the whole outfit as before, and this time it was getting too late for them to gather a winter supply, and I fed them up on honey and sugar syrup, and the next spring I watched closely for the disease to reappear, but it never did appear, and I caught an idea then that if one could possibly wait until breeding time was just about over, and starve the bees, and put them on frames of honey or syrup (plenty for winter) that by spring the germs that the bees might carry

with them in some way would disappear, and not bother the bees any more.

The trouble with this would be, if the disease should appear in the spring-time we could not afford to wait until fall, so we would have to go through the operations twice to get a cure. Or I think it will take twice in most cases.

I would advise that all old hives that had contained foul-broody bees, should be scraped clean and scalded out thoroughly before using again, and the sooner the hives are cleaned, the better, as bees will gather up the bee-glue and bits of comb if left where they can get to them, as there is always more or less comb and glue left sticking to the old hives, especially if bees have been in the hives for some time.

The reason I advise so strongly that the hives be well scalded is this: I bought a hive one time for a pattern, and carried it home 15 miles; I cleaned it well, but did not scald it, and the hive I bought had contained a foul-broody colony before I got it, but I did not know it; in fact, foul brood had killed the bees outright, was why the hive was empty. The colony I put into this hive took the foul brood, and from it I lost nearly 100 strong and prosperous colonies. This is why I am afraid to use a hive without scalding, that has had a foul-broody colony, and I believe I have a right to be afraid of hives that have been exposed to foul brood, don't you think so?



I think the above is about the extent of my cure, and if my bees should ever become affected again, as they were then. I should burn lock, stock, and barrel, and begin anew with healthy bees, if I could get new bees reasonable.

It is useless, I suppose, to state that I tried salicylic acid, and all known remedies at that time, and the disease spread right on just the same. I extracted some honey from some of the colonies, and put it into a jar, and to touch the jar, the honey and foul brood matter would shake like jelly, and the hives were continually covered outside with green flies, and the apiary could be

smelled nearly a half mile on the windward side. This is the kind of *foul brood* my bees had, and no mild remedies would check it. What I know of the foul brood of to-day, it is nothing to compare with what my bees had. This is why I have so bitterly opposed the use of hives without being well scalded. Some say it is no use to scald the hives, but I think if they experience the trials and the kind of foul brood my bees had, they will agree with me.

I have not written all the above to scare any one, but by all means beware of foul brood!

## LESSON NUMBER 10.

### GENERAL WORK IN THE APIARY.

We will take up in this lesson some items of general work, and try to ascertain how to do certain things.

#### SIGNS OF QUEENLESSNESS.

We will first tell how to know a colony is queenless when there is a large colony, and we have not time to search very long. If the hive has been queenless some time, or beyond the period where it cannot rear a queen—I mean by this a colony that has no brood or eggs—they become discouraged, and if we watch closely we can tell on opening the hive, as they will be scattered all over the combs, and no general work going on. Then, as soon as the hive is opened, it seems that every bee sets up a mourn, a slow buzz of the wings, making a low humming sound. This is almost a sure sign that they are queenless, and I can tell almost without an exception when a colony is queenless when I first open the hive.

Then we have another queenless sign, when the queen has been out but a short while. The bees will come out and crawl up the front of the hives, and fly away a short distance and return to the hive, and begin a call as it seems, calling for the queen, and to show her where home is. This the bees will do sometimes constantly for a week, after they find their queen is not with them.

I had better here mention the few exceptions to this, as some bees never

mourn for their queen at all, and show no queenless signs outside of the hives, and really I have met a few cases where the bees never would start a queen-cell or mourn after their queen was taken out, and bees are always poor cell-builders that do not mourn for their queen.

Of course you all are to understand that queen-cells are nearly always a sure sign of queenlessness, but not always. At swarming time, and when bees have an old queen that they wish to supersede, they will start queen-cells with a queen present, but when we have a knowledge that a hive had a young, prolific queen, and no swarming is expected, then queen-cells are a sure sign of their being queenless. But when we open a hive, and the bees are all centered together, or in a compact shape, and the combs looking clean and the bees quiet, etc., then we may be pretty sure they have some kind of a queen.

#### GETTING STRAIGHT COMBS.

Now, should you be short of foundation at swarming time, or at any time when the bees are building combs, and you wish straight combs, see that the first two or three combs are started straight, and then keep an empty frame between two of the combs started, and have the hives level from side to side, and you will get nice, straight combs.

#### HIVING NATURAL SWARMS.

In hiving natural swarms, or any other swarms where you wish to have



the bees go in at the entrance, always put a few bees in at the top, close the cover, and as soon as they begin to call, or buzz their wings at the entrance, then you can jar or smoke the whole swarm into the air, and they will enter the hive, if you will keep a smoke at the place where they were clustered, for a few minutes. The main thing in hiving bees this way, is to get a "call" at the entrance, and they will then hive themselves.

#### TO PREVENT ABSCONDING.

To keep bees from absconding when they have been hived, give them a frame of unsealed brood and eggs—not sealed brood. This is the best remedy I ever saw, and *never* in all my life have I had a swarm to abscond when I gave a frame of unsealed brood, honey and eggs.

I gave this plan to a beginner about ten years ago; he had been losing swarms, and he gave frames of sealed brood and sealed queen-cells, and their swarming fever was high, and they would come out every day and settle on a limb. He came over and said my remedy was no good—they came out just the same. When he told me his bees settled on a bush near by each time, I suspected something wrong, as bees coming out of a hive and absconding after they have been hived usually go right off without settling, the same as if they had started off a limb; and some swarms have been reported going right off to the woods from the parent colony, but this I never saw, and it may be these parties were mistaken, and it was swarms that had been hived in new hives that came out and went right off.

Well, back to our frame of brood keeping swarms content. I went over to the neighbor's and found that he had not only given frames of sealed brood, but with sealed queen-cells as well, and the bees came out as any natural swarm, leaving enough bees to care for the brood, and did not all go. So I changed things, and gave frames of unsealed brood and no queen-cells, and there was no more swarming out.

There may be instances where bees will come out and leave unsealed brood, and also bees may occasionally come out of the parent hive and go straight for parts unknown, when there is nothing for them to alight upon, but I have *never* seen them do either.

#### HOW TO CONTROL THE BEES.

The main thing for a beginner to do if he or she wishes to make a success of handling bees, is to smoke a few puffs, right in at the entrance, before the hives or anything about the hive, is touched. This will give you complete control of the bees, no difference how bad they may be to sting—Cyprians not excepted.

I have known lots of beginners to throw down everything in disgust and quit bees entirely, just by going to the hives and prying the cover up the first thing; the bees of course covered the operator, and the air filled with mad bees; when, if the bees had been smoked at the entrance first, all would have been well.

The next lesson will be Honey-Plants and Honey-Yielding Trees that we get our surplus from.

## LESSON NUMBER 11.

#### HONEY-PLANTS OF TEXAS, ETC.

I will give the honey-plants by States, giving the names and blooming time of all the principal honey-plants, or those that give our surplus, and to get a good honey crop we must have our bees strong at the time of the beginning of our honey-plants. This is why I am going over this ground so carefully, as much depends upon the management of our bees before the harvest comes, if we wish to keep out of "Blasted Hopes;"

so I cannot close this, it seems, without rehearsing the warning note: Keep your bees breeding, and get them in *first-class* condition to reap the harvest when it comes, and you will have less cause to grumble of bad seasons.

As we must know our honey-plants as well as our bees, if we wish to succeed, I will describe those giving our surplus, and blooming-time of the same.

First, I will begin with fruit-bloom, which is usually first in almost all



States. That gives us much honey, and fruit-bloom in this State (Texas) some times gives a fair crop of honey. One year I harvested 30 pounds per colony from peach-bloom alone.

As fruit-bloom comes first, we had better see that all the bees have plenty of honey just after the close of fruit bloom, as some seasons the bees get only honey enough from this source to get them started to brood-rearing largely, and if two weeks of bad weather, or two weeks without gathering any stores after fruit-bloom, may find many strong colonies starving, as it takes large quantities of honey to rear a large number of bees.

The next we have in Texas is horse-mint (I am now giving the honey-plants of North Texas). This begins to bloom about May 20th, and fruit-trees usually bloom in March and go out by April 1st. So you can see the hard time on bees in North Texas, from April 1st to May 20th—nearly two months. Then comes a harvest from mint, if we have kept the bees going, otherwise the harvest comes and no reapers, which means a great loss.

Then after mint comes cotton, making a continuous honey-flow from May 20th to Sept. 1st. There are some plants not mentioned that usually keep the bees out of mischief, and giving honey sufficient for brood-rearing, but no surplus—such as rattan, milkweed, poison-vine, and others. But the honey harvests come from mint and cotton.

From middle Texas we get fruit-bloom in February, and mint on May 1st; and west Texas, buffalo clover in May; and sumac in August. These are splendid honey-plants, and the management should be the same in all localities where there usually comes a dearth of honey between fruit-bloom and our harvests.

In southern Texas we have wild currant in January, fruit-bloom in February and March, and when weather is favorable we get some surplus from these. April 1st we get a good crop of honey from catclaw and other plants. This lasts until May 1st, when horse-mint begins, and lasts until June. Then mesquite begins, and we have here at this place (Beeville) a steady flow from April 1st until July—three months. Mesquite ends our summer flows, but when we have fall rains we get a splendid flow from flaxweed, called by some "broomweed," as it will make brooms. After broomweed we get no more until spring.

Bees usually begin swarming in North Texas on April 1st, and in the middle

portion about March 15th, and here in southern Texas about Feb. 15th. These are the dates of the early swarms, and bees swarm on through the spring months until July, which usually puts a stop to swarming in Texas, unless we have good fall rains, then we sometimes have fall swarms.

NORTH CAROLINA.—I have obtained the following information from Mr. W. H. Pridden, of Creek, N. C., a reliable man and good bee-keeper:

"The principal honey-plants, and their time of blooming, are as follows: Elm blooms Feb. 15th, maple March 1st, fruit-bloom March 15th to April 1st, white clover, from which North Carolina gets her best honey-flow, begins about May 15th. June 1st to 10th poplar blooms, and when the weather is favorable it yields lots of honey. Also persimmon blooms about the same time, and is good July 1st. We have sourwood, which gives our white honey. Bees usually begin swarming in North Carolina about April 15th to May 1st."

FLORIDA.—The following I obtained from Mr. J. B. Case, a reliable man, and a good bee-man of the South:

"Usually about May 15th we get here in Florida a fine honey-flow from the red bay, which grows very luxuriantly in the hammocks. The honey is rather dark, but of fine flavor. Gallberry opens about the same time, and where it is plentiful, it affords a surplus. About May 10th to 15th saw-palmetto begins to yield honey, and in locations two or three miles from the ocean, and, in fact, all along the coast, this is the main crop. The nearer salt water the more thrifty it grows. It blooms profusely, and yields honey in abundance, of light color and good quality.

"In July the cabbage palmetto—a kind of palm—sometimes yields considerable honey of fine quality, but coming as it does in our rainy season, and the blooms being very tender, it is quite liable to blast, or scorch by the hot sun coming out after a shower, and also from other causes it is very unreliable as a source of honey, but when everything hits just right, it is hard to beat for honey.

"Also the river bottoms are full of red mangrove, yielding a thin, white honey, and some seasons it affords honey in great abundance, but as its area is quite small and well stocked by bees being shipped in from the surrounding country in such quantities, it has to be a very favorable year to get paying



yields from it, and lately its yields have been light.

"The above will be about right for all the eastern coast of Florida. Bees, to be profitable here in this State, must be kept near the Ocean or Gulf, or near the rivers where are the large hammocks and near large orange groves. Swarming usually begins about March 15th to April 1st, and as this is about the time oranges are in bloom, and as the trees vary, the time of swarming also varies."

KENTUCKY.—The following information as to Kentucky, I got from Dr. J. W. Crenshaw, of Versailles, whom I know to be reliable:

"Soft or water maple blooms from Feb. 1st to March 15th, according to the season, yielding both pollen and honey, and is of great value, as it gives an impetus to brood-rearing, which stimulates the bees until warm weather. It remains in bloom about a week, but the bees seldom have more than one to three days to work on it.

"Dandelion blooms March 1st, and furnishes both honey and pollen. Fruit-bloom continues from March 25th to May 1st. Sugar maple blooms April 15th—mainly honey in small quantities. May 10th black locust blooms, remaining two weeks, and most years yields a large amount of honey." [I will add here that black locust is one among our Southern honey-yielders that only yields honey from its bloom one time; that is, it never has any honey except that on opening; but it is sometimes two weeks getting done blooming.—JENNIE ATCHLEY.]

"The honey is clear, and its flavor is second to none in the world. Unfortunately it usually blooms during our rainy season, and the bees have but little chance at it. The bees only had three days to work on it last year, and they filled their brood-chambers.

"White clover blooms from May 1st to August. This plant is the only one we can always count on in this part of Kentucky for a crop—June being the principal month of its blooming, and some years the whole face of the earth is covered with it here. It *always* blooms more or less, and *always* yields honey—enough for an abundant winter supply.

"We have a few basswoods left yet, and some poplar, and no doubt we get some honey from these sources yet, but

not in paying quantities. Strawberries, raspberries, squash and tomatoes all give us some honey and pollen. Heart's-ease, or smartweed, which grows in damp places, frequently yields well, but I know nothing of the honey. Buckwheat for bees here is nearly always a complete disappointment. Golden-rod has been observed very closely by me for a number of years, but I have never seen a bee on it."

ALABAMA.—The following data was furnished by that whole-souled bee-keeper, J. M. Jenkins, of Wetumpka, and will correctly apply to his part of the State:

"My bees begin swarming about April 5th to 15th. Our honey comes from willow, poplar, maple and swamp flowers. This locality is not much for honey. Cotton plantations are all around me—only a little natural growth along the rivers—no clover, and not much basswood here."

I have correct data for nearly all the Southern and Western States, and to make this lesson short, considering its great subject—the honey-plants—I will say that the six southern counties of California, from which counties the *most* honey is obtained, that their principal honey-plants are the black and white sages, the white variety growing upon the mountains or highlands, and the black grows upon the valley lands. The honey from white sage ranks first alongside of any honey in the United States, and the black sage is also good, but has an amber color, which spoils its sale in white-honey markets.

Nearly all the Southern States get a crop of nice, white honey. I used to keep bees in Tennessee, and some of the *finest* honey I ever saw was gathered there. Also Arkansas has some fine honey. Mississippi, the Carolinas, and Georgia, all produce good honey. It is a fact beyond a doubt that honey gathered from plants, trees, etc., in low lands is not as white as that gathered from the high lands. Bees have been kept more extensively in the low lands of the South, and almost all their honey has been dark, and when shipped to Northern markets goes by the name of "Southern strained," as though the bee-keepers of the South never saw an extractor! There is also white honey in *all* the Southern States.



## LESSON NUMBER 12.

## HOW TO PREVENT SWARMING.

Now after I tell you how to keep your bees from swarming, and you think it is too much trouble, why then let them swarm. If you do not desire any more bees, or any more colonies, and you are bent on keeping down swarming at all hazards, cage your queens and let them remain caged in their hives until the brood all hatches out. Keep down *all* the cells for eight or ten days, or until they have no chance to start any more, and if you are determined to stop the swarming, you *must* not overlook a *single* cell. Then, when the brood is all hatched, turn loose the queens, and I will *guarantee* that your bees will not swarm naturally any more until they get sealed brood, and by that time your honey-flow or the swarming-fever will likely be over. But if they show signs of swarming, starting queen-cells, then cage again, and I will go you a nicker that they will be so reduced by the time you get through the second round that they will be content to stay at the old home for the rest of the season.

Now, this I know is a heap of trouble, but I give it as a remedy to prevent bees from swarming, and it will surely do it, for I have tried it, and when you put out a long grin, and doubt my remedy, try it and be convinced. If you do not think I can walk into an apiary of 100 colonies, and in less than three days' work knock the swarming business in the head, give me a chance and I will convince you, unless I happen to miss some cells like you are apt to do. But that must come under the head of an exception, and not a rule.

Here is another good remedy. But first I will say where there is trouble there *must* of necessity be a cause, then remove the cause and a cure is easily affected. Well, the cause of swarming is sealed brood, sealed queen-cells, and sealed drone-cells. Now keep the *sealed* brood away until the swarming-fever is over, and no swarming will take place.

I wish you to understand that bees do not swarm naturally with unsealed brood, so the main *cause* of swarming is an abundance of sealed worker-brood, sealed drone-brood, and of course when this is the case they are in a prosperous

condition, or they would not have the hive full of sealed brood. Then this is the cause—remove it, and a cure is effected.

You are heard to ask, "What will I do with that sealed brood?" Well, in large apiaries I have always found some weak colonies that can be built up and made equal in bees to the balance, and made ready for the honey-flow, but if such is not the case, put your sealed brood off into empty hives, protect from ants and sun, and leaving a few bees to care for it, is best. Do not let them rear a queen, and when the bees have all hatched out, take them and the empty combs they occupy, and put back with the old queen and old hive where they came from, removing all the brood as before. Put on the sections, get a crop of honey before they get another hive full of sealed brood, and let the bees know that you can beat them at their own game, and don't be one bit afraid of their swarming until they get a lot of sealed brood, for they won't do it if there are two bushels of them.

Now you may say all this is a heap of work and bother, which I will admit that it is, and I love to see my bees swarm too well to practice it much, but it is a remedy for swarming, just the same, and when I am determined to prevent a colony from swarming, I can do so by the above plans.

I have kept down swarming by keeping all the queen-cells torn down, by going through the hives once a week until the swarming season was over. I know that it has been reported that bees do sometimes swarm without having queen-cells started at all, but it must be exceptions and not a rule when they do so. I never had a natural swarm to issue in all my 20 years of bee-keeping, without starting cells first, and seldom until one or more queen-cells were sealed; but I have a few times had swarms issue before any queen-cells were sealed. I am of the opinion that those who reported swarms without any queen-cells started at all, were not natural swarms, as I have *often* had pretty fair colonies swarm out on account of starvation and other causes, and also there would be a few young bees left in the hives, but they were only what we term "pauper



swarms." It may be that Italian bees sometimes swarm without making any preparations, but it has never come under my observation.

#### BEST PLAN OF INCREASE.

To close this swarming question, I will add that unless you have *all* the bees you can possibly handle and care for, I would allow them to swarm one time each, or divide them artificially, which means about the same thing in the South; for if you take away the largest part of the brood with the new colony, leaving the old queen on the old stand, and give empty frames, or frames of comb foundation, if done just at the proper time, it is as near natural swarming as anything I know of, and the proper time is just at the time they begin to prepare for natural swarming by

starting queen-cells. I do not wish to be understood that the starting of what we call "stubs" of queen-cells in nooks and corners, etc., but when the cells have eggs in them, and the bees commence to build them out. Then take the brood, queen-cells, and all to a new stand, leave the old queen a frame or two of unsealed brood, and shake off some young bees on the old stand. The bees will then take care of and finish up those natural cells, and you have natural queens, and just as good as natural swarming. Of course only allow one cell to remain in the new colony, lest they cast a swarm—leave a nice large one. This is really my best plan of increase, as I have stated before, and one that will likely give satisfaction.

The next lesson will be different races of bees, queens, etc.

## LESSON NUMBER 13.

#### DIFFERENT RACES OF BEES AND THEIR HABITS.

I think it is about time I was telling about the different races, strains, etc., of bees kept in America.

#### BLACK OR NATIVE BEES.

I will take up the black or native bees first. These bees have been here since civilization began, as far as I know, and we could have made out with them if we had never gotten anything better. These bees will store honey almost as well as Italian bees during good seasons, and enter the supers readily, too, and sometimes it seems that they are too hasty to enter the supers and leave the brood-nest almost without honey, and have been known to starve and suffer just after the supers were removed, as they had all their honey above, and the supers came off at the close of the harvest, and the bees had no more chance to gather honey, and so perished.

These bees usually turn out whiter section honey than Italians, as they do not quite fill the cells full, and the honey does not color the cappings.

Black bees are fearful robbers, and also become discouraged very easily when no honey is being stored. They are also poor soldiers, as they are more easily discouraged, and their sentinels

driven from the entrances, and robbers can then walk in and help themselves. Last, but worst of all, they are more subject to moth-worms than other bees. And to close my remarks on native bees, I will advance my idea that they are a genuine wild bee. We have a wild and tame variety of a great many animals that very much resemble each other, and the black bees seem to want to pull right out to the woods as soon as possible after they swarm. Also, when their hives are opened they run as if they were scared almost to death. All these characteristics seem to prove to me that they are a wild variety of bees. The queens are usually prolific, and the bees hardy.

#### ITALIAN BEES.

This race of bees made its appearance in America about 40 years ago, by some of our most enthusiastic bee-fathers, but by whom it is hard to tell. But I would be very glad indeed to know just who it was, so that I could note it down for future generations, but I will leave it blank for the present.

The Italians are evidently our tame bees, or bees that have been worked and manipulated by the hand of man more or less since the world was created. I am told by some Italian history that 100 years ago, or less, there were no black bees in Italy. The truth of this I could



not endorse, as the historian might have been mistaken.

Italian bees are somewhat larger than black bees, and always, almost without an exception, they leave honey in their brood-nests, and seem a little slower to enter the supers, but store very rapidly when once started in the sections. They are not so much disposed to swarm as blacks, and consequently usually a great deal stronger in bees, and of course gather more honey. They seem more gentle, adhering to their combs while being handled, and sometimes hang around the bee-yard or house longer than blacks, and giving every evidence of a tame variety of bees. They are not so readily disposed to rob, protect their hives against robbers and moths, and, I might say, against any intruder better than blacks. Having a tame disposition, they stay at home and fight to a finish, when the blacks get scared and run.

Comb honey stored by Italian bees is not so white as that stored by blacks, inasmuch as they usually fill the cells full, and the caps are placed right on the honey, as a little hole is left in the cappings, and they put in honey until it comes clear up to the cappings. Any way, the cappings are against the honey, which gives the comb the color of the liquid honey. But when this is once understood by consumers, they seem to like it all the better, as the rich, golden color looks well.

The Italians are harder to get off their combs at extracting time, or any other time. Being tame and gentle, they hold fast. The queens are large, and very prolific, and easy to find, as they seldom run down in the hives like blacks. I am satisfied they will go farther for honey, and carry larger loads, are more handsome than blacks, pay better, and, all in all, are a race of bees hard to "take down" when all things are considered.

#### GOLDEN OR 5-BANDED BEES.

This is an Italian bee also. I suppose that almost all old-time bee-keepers, as well as some younger ones, have noticed that the longer the Italians are kept pure, and bred in America, they get more yellow. This seems to be the case with people that come here from Africa—they get lighter after being domesticated. I began looking after this particular trait in the Italian bees in 1885, and for the last five years I have reared bees almost solid yellow, and no bands at all. These bees have about the same traits as the old Italians, except they are quicker to enter supers, and seem to

delight in how much honey they can put into their hives. And swarming is not indulged in quite as much as with common Italians. This characteristic alone proves that they will be likely to store more honey per colony, all things being equal, for some bees are hard to keep together long enough to store a super of honey, and the non-swarmling quality in the 5-banded bees is worthy of notice. But they will swarm, too, occasionally, and by an honest, fair, and impartial test I have found them, as a rule, more cross than common Italian bees.

But they are easily handled; and, Great Scott! what robbers they are! Whether their being so yellow makes them conspicuous or not, I don't know, but during a scarcity of honey the yellow "ladies" can be seen all over the apiary, and if the weak colonies do not look out, it is good-bye. But this only proves them to be rustlers, and where the apiary is all 5-banded, they do not stand much show, as they are as good to defend as they are bad to rob.

After a five years' careful test, I am satisfied to hold on to my "Goldens," as well as to the old mossback or leather-colored Italians. They both suit me to a "t." If I were going to run an apiary for comb honey, give me 5-banded bees; if for extracted, common Italians. Either one of these strains of bees is good enough for the Joneses, and it is said they are the best people in the world. For beauty, the "Goldens" stand at the head, but for business I cannot find any improvement worth mentioning over the old three-banded Italians.

#### CARNIOLAN BEES.

This beautiful race of silver-gray bees I have given a thorough test the last two years, and their queens are the most prolific of any strain of bees I ever saw. They build up faster, and get ready for a honey-flow quicker than any bees I ever had. They are, as a rule, the most docile race of bees in America, or that is my opinion. Out of the six fine breeders, this year, only one produced bees that cannot be handled without smoke. They store white honey, or, like the blacks, do not quite fill the cells, which leaves their combs white.

They are not disposed to rob, nor do they let a robber in if there is any chance to keep her out. But I do believe that they are the worst swarmers of the whole business. They would swarm and re-swarm, and then rest awhile and swarm again. But they seem to know that they *must* stop long enough to fill their supers before frost,



and *all* colonies that had a chance came out with well filled supers on the home stretch.

#### CYPRIAN—HOLY-LAND—ALBINO.

I have given the Cyprians, Holy-Lands and Albino bees a fair test. The Albino is too much on the sleepy order for me, and the Cyprians and Holy-Lands are too stingy to be used by most people, otherwise they are good bees, and I can produce fine honey crops with them.

Now, I have written out this history of the different races of bees, giving their characteristics just as experience has taught me, by actual practice right in the bee-yards, without the least bit of partiality on my part. While my experience along these lines may not be in accord with others, I mean to give my own experience pure and simple, for what it is worth, to my readers, and you may rest assured that I have given it as nearly right as I know how.

## LESSON NUMBER 14.

#### RECEPTACLES FOR HONEY—HOW TO PUT IT UP.

As we have now learned to produce honey, I will tell you how to put it up, and how to keep it. The best vessels for extracted honey are the 5-gallon square cans with screw caps, and two to a case. This is getting to be a standard package for extracted honey. But in the South, where cypress barrels are so cheap, and freight high on the cans from factories, 24-gallon kegs are extensively used, so the next best thing for extracted honey, to the tin cans, is the kegs. But we had better use none but the iron-bound, as the wood-bound kegs are likely to burst in shipping.

Right here I will give you a pointer that will save you some trouble and time: If you live near enough to a barrel factory, go and attend to your own barrels while being built, and have good ones put up, telling the cooper what you want them for, and after one head is put in, have your beeswax ready (or beeswax and paraffine will do, mixed half and half, but I don't like all paraffine, it doesn't stick tight enough), and pour in the melted wax, twirling the barrels in a way that they will be thinly coated with wax all over, and also give last head a coating before putting it in, and you will have a honey-barrel that will not leak if properly built, and honey will not soak up into the wood, nor will the wood injure the taste of the honey. And if your honey is ripe, as it should be, it will keep any length of time. I have heard mother say, the older the honey the better. She has kept it for 20 years, and it was still as good as at first.

The public, by some reason or other, especially the consumers of honey, have come to believe it won't do to buy honey in large quantities, thinking it will sour and spoil. But it is a mistake, for good, ripe honey kept in a good vessel will keep for a life-time and be good. It will no doubt solidify, but it can be brought back to its liquid state by melting it in boiling water, by placing the vessel containing the honey in another with the water, and let it remain until all is melted; and the honey will be as clear and as good as the day it was put up.

I would keep the barrels in the cellar or some cool place, but a warm place will not hurt it, only the barrels may shrink, and eventually leak if kept where it is too warm. But a warm room will not affect the honey.

Now, the foregoing directions are for keeping honey for home use, and for you to tell your customers how to keep their honey when they buy a barrel or keg from you at a time. Of course I do not expect you to keep your honey any longer than you can find sale for it, and sometimes we may have our honey engaged before we extract it. You may say that people ought to know how to keep honey, but I tell you the public need schooling, and they look to you to tell them how, etc. Some bee-keepers fail to build up a honey (home) market just by not schooling people about honey, and being ready and free to advise.

Comb honey is somewhat more troublesome to keep than extracted, and ought to be kept in a warm, dry room instead of a cellar. Keeping section honey free from moth and ants in Southern countries is sure enough a problem. But I have kept it nice and good for years, by



keeping it in tight cases on benches or tables, with the legs in water to keep ants from getting in it. Preserves can be kept free from ants the same way. Just place a table in the center of a small room, for instance, or any room, and keep the legs in pans of water, and a little kerosene oil put into each pan will make it all the better and surer, as ants can spoil honey quickly, so we cannot well be too careful.

Stone jars or crocks are splendid to keep honey in for family use, but are a little hard to keep covered tightly; but I can place a beeswaxed cloth over the top, then the cover, and it does splendidly. I have kept green fruit in jars for a season by sealing tight with beeswaxed cloths.

I am satisfied that if you will follow the above instructions, you will have no reason to complain about keeping honey.

## LESSON NUMBER 15.

### HOW TO GET ALL WHITE HONEY.

Now I will be glad if my Southern readers will pay strict attention to this lesson, *especially* how to get nice, clear, white comb honey.

First, I will say that we *must* have nice, clean sections, and use the best and thinnest foundation for starters. But the greatest trouble lies with those bee-keepers that do not study their honey-plants, and let their sections remain in the hives when red or undesirable honey is coming in, and the bees will have some dark honey along with the white, and all is spoiled. Now, if you have a crop of white honey during the season, you should know exactly the time, as near as possible, when to look for it. Have your bees in condition to gather it, and take all undesirable honey off, if there should be any, and have the supers ready to put on the moment the white honey begins to come in; and you can, if you like, use some dark sections for bait in the center of the super, then, when well started, take it out and put in new ones. But by all means, do not let your dark honey get mixed with the light. If you will do as I have directed, you will be pleased to find you can get white honey in the South as well as anywhere, and just as fine flavored honey.

I have had it intimated to me that comb honey in the South is too tender to ship, etc. Now, friends, I would not like to have you think this. I cannot see any difference in Northern and Southern honey as regards its shipping qualities. Of course, during the very warm weather here our honey is very tender, but any honey would be tender under the same conditions. But I assure you that you can produce and ship

comb honey in the South as well as anywhere.

The greatest trouble we have here with comb honey is the moth. I am going to have made a wire-cloth honey-house, large enough to hold 20,000 pounds. I mean by a "wire-cloth house," that I will make the sides nearly all wire-cloth. Make it ant and moth proof.

And then, in this dry country, I notice that the moth does not bother combs that are well ventilated, like those shut up close. The wire-cloth sides will allow the wind to circulate freely through the house, and keep the dampness all out. I have some honey in a small wire-house now, and it is keeping all right.

I have always delighted in producing section honey since I first tried it, and I expect to produce and ship it in the future. I am anxious for Southern bee-keepers to put comb honey—fine section honey—on the markets of the world, and let people know we can produce something except "Southern strained honey." I tell you, friends, we of the South have been too careless about getting up our honey for market, and we must not sleep over our rights any longer, but let's go to work and produce comb honey by the carload, as we call it. Let's have all our white honey in the sections, and extract the darker grades, and I believe that if we will be up and doing, and try ourselves, we can add to our list fine comb honey by the carload.

The reason I have gone over these grounds so carefully, and repeated some words about it, is because we are away behind on section honey, and we should not be. Now some, or all of you, try some section honey this year, and see if you are not pleased.