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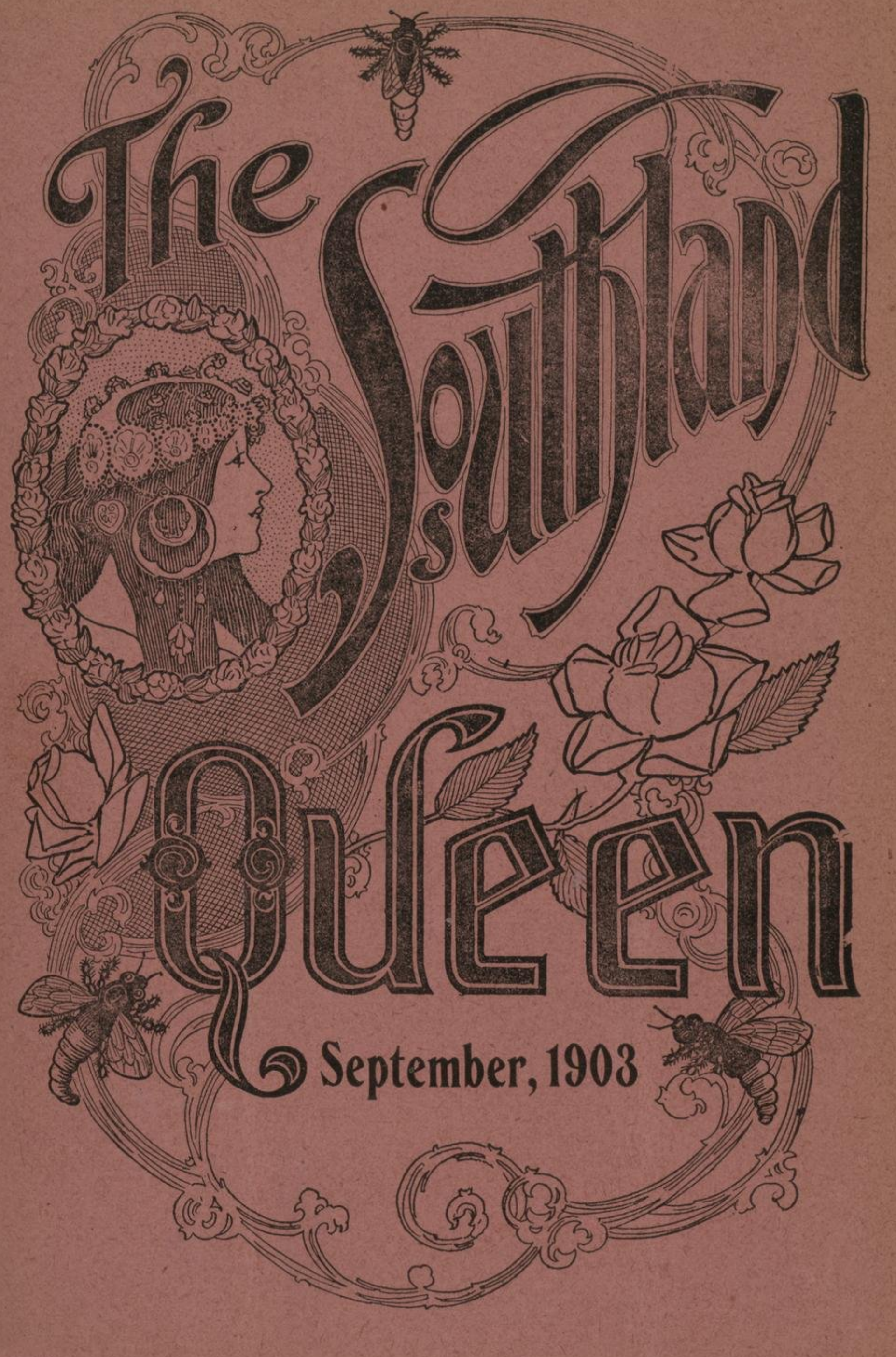
Beeville, Texas: E.J. Atchley, September 1903



Volume 1. Number 6.

The Southland Queen

DEVOTED TO THE EXCHANGE OF THOUGHTS ON APICULTURE.

Published Monthly. $1 Per Annum.

BEEVILLE, TEXAS, SEPTEMBER, 1903.

WHAT SOME OF THE BEE EDITORS ARE SAYING.

Guess Work, or Locality, Which Makes the Difference?

J. E CHAMBERS.

'I doubt whether or not bees would cover up so large a thing as a rat," says E. R. Root in Gleanings, July 15th, page 638. "Perphaps they would swarm out rather than undertake so big a job." I am not an editor, and glad, indeed, that I am not, if editors know no more about the case in point than that. I can say positively to Mr. Root or to any one else that in this locality the bees would speedily cover up his ratship. I have hunted wild bees in nearly every part of West Texas, and at various times have found dead rats in the hollow of trees that were inhabited by wild bees In every instance these rats were co vered over with propolis or bee glue, and were in a fine state of preservation. In one case every bone in the carcass could be distinctly seen through the transparent coating of the propolis, and at another time I counted forty-five large bugs in the bottom cavity of a tree that was occupied by a strong force of wild bees. These bugs were covered over the same as the rats, and together with a mass of dried leaves, formed a bowl-shaped cavity of more than forty inches in circumference. To coat over all this matter was a big job, yet these bees did not swarm out, as Mr. Root thinks they would, in hives at home. I have often seen dead rats, but never a swarm-out. What made the difference, perhaps, Root's bees are too aristocratic.

In the same issue of that excellent journal Mr. Root gets off another wild shot, and one that I consider will do his paper much more harm than good, for to be suspected of grinding your ax at other people's expense is not popular just at the present time. In this connection particular reference is made to the following editorial note: "I cannot imagine

why any one should attempt to use combs of any kind unless they are wired. In buying up bees we get such combs, and to say they are an intolerable nuisance is putting it very mildly, indeed; and again, starters may be used in wired frames, and the bees will build natural comb over the wires very readily.' I do not believe one bee keeper in a dozen uses wire in even the deep frames like the Langstroth, and to seriously recommend its use in the shallow kind is equivalent to admitting that you are no good bee-master. For I know positively that any careful operator endowed with a fair knowledge of bee-culture can get the bees to build satisfactory combs without the use of wires, which are an intolerable nuisance in many cases. I have in my yards approximately 10,000 combs of the depth of 5¾ inches, not one of which is wired, yet they are as true and straight as a board, and I will bet Editor Root a barlow knife that they will haul over ground safely where his wired combs will go. It would be a waste of space to more than call attention to this absurd statement, but with regard to the other declaration that bees will build readily over wires, I will say that they will, and they will build just as readily over sticks in the hollow of a tree, but they are not apt to make good combs. Like Mr. Root, I have bought some bees on these natural built combs over wires, and if there is anything that ever deserved the appellation of an intolerable nuisance it is these natural built combs. Only a short time ago I helped to fix and move some bees on natural built combs over wires, and oh, Satan! what a mess. Pot-bellied, lump-sided, scary-looking, make-believe combs. Oh, if Root could have seen them; it would have hurt his digestion for a long time to come. However, it is useless to say more, for everybody knows that it is a matter of care and constant watching to get even tolerable combs built in this way, and then a fall or lick on one corner, and you have a something, not exactly a good comb, though. On the other hand, to urge every one to use full sheets of wired foundation is, to say the least, a mistake, for the vast majority neither can or will follow the advice, and those who do may think later on that you had lots of wire and foundation to sell.

Lately Editor Atchley had this to say in regard to brushed swarms: "The only way to keep the old queen on the old stand is to make the colony so weak that it will not think of swarming later on." I had to laugh when I saw that, for it has always been my practice to put the swarm with the old queen on the old stand, and I have never had any trouble of that kind. Sorry, Brother, Atchley, but there

must be more in locality than many of us think, or else some of us are not cut out for the brushed swarm business. However, I am sure locality has all to do with this matter.

Editor Hutchinson says in the Review that he has proven year after year that the giving of a young queen before the swarming fever has developed will prevent swarming. Sorry, Mr. Hutchinson, but it won't do nary a time in this locality. Not even allowing a colony to rear a young queen from their own brood will be infalible, though it is reasonably certain as a preventative.

The distance bees will go for honey seems to be a question and contention among some of the bee journal editors and others. A good many seem to think about one mile is the average distance that bees may be expected to fly in search of nectar. Few men have been so favorably situated for observing the distance that bees readily fly as your humble servant, and I am prepared to prove that they go two and three miles. Both last year and this I had an apiary right among the sumac, and it is two miles from my home apiary to the sumac, but the home bees stored last year, and are now storing, fully as much as the bees right among the sumac. There being no Italian and Carniolan bees in this section but mine, that fact and the distance they go is easily determined.

[Friend Chambers—Your locality theory cuts a larger figure in controlling swarms than perhaps you have any idea. We have what we call a swarming mania about once in five years, and I have been through several such seasons, and there is just about as much difference between this locality and yours as there is between day and night. When the swarming fever runs high in this locality there is no known method that will stop it except to get the old queens away. Taking every cell of brood and placing the bees on clean foundation does no good. Room cuts no ice, nor anything else, and to put a quietus on proceedings, take away the old queens. Put them in weak nuclei or kill them, as you choose, and see to it strictly that but one cell hatches, or is left in the old hive, and swarming for a time, at least, is prevented. Perhaps you are a deal more of an expert at handling bees and swarming than I am, but I am sure that you would be at sea without a paddle should you come to South Texas and manipulate your bees in swarming time as you do in Middle West Texas, just like I was when I came here about ten years ago. As to bees covering up objects, I don't want to appear "fishy" at all, but I found an 'opossum completely covered up with propolis in a bee tree several years ago.—Ed.]

Moving Bees.

L. B. SMITH.

Your request for me to prepare an article for the Queen is here, and of course I shall comply with the request as best I can, though I am exceedingly busy now moving my bees to an out-yard some six miles away, to where a dense growth of sumac is just now coming into bloom, with the hopes, of course, of securing a crop of honey from this much valued honey plant, and you know it is said we write and talk best on the subject we are most interested in at the time of said writing or talking, so I shall give an outline of the preparations we have made for moving our bees to and from the out yards, with the hope that the editor, with his quick and critical eye, and long and varied experience in apiculture, will point out the defects in our preparations for moving bees. First, we sent and got springs for our farm wagon. This we think very necessary for this rough and broken country. We then made a frame to set on top of the bottom box of our wagon bed which will hold twenty-four eight frame hives, or about twenty-two ten-frame hives. This frame is made of light material, mostly 1x4 laths, yet it is substantial and strong. We patterned our frame after one we saw used by Rogers & Harden, the big bee men of San Saba. The hives set crossways of the wagon box so as to be less danger of combs breaking down. We next made some frames about an inch and a half deep, to just fit the tops of the hives. These frames are well braced with a cross-piece running through the center and covered with wire cloth. These, of course, are to use on top of the hives instead of the covers for ventilation. These frames are to be fastened on the hives with an iron hook and eye we have ordered for the purpose. The hive bodies and bottoms will also be fastened together in the same way. These hooks and eyes will be put on the screens and hives so as to be interchangeable, so when we arrive at our destination with a load of bees all we will have to do will be to unhook the screens, put on the cover and come for another load. We will also close the entrances with wire cloth and move in the after part of the night while it is cool.

Have taken 160 gallons of honey up to date, which is a small showing for 100 colonies.

Rescue, Texas.

Teachers' Interstate Examination Course.

Teachers wishing to prepare for examinations should write at once to Prof. J. L. Graham, LL. D., 152-154 Randolph Building, Mem-

phis, Tenn., for particulars concerning his specal Teachers' Examination Course.

This course is taught by mail, and prepares teachers for examination in every state in the union. Leading educators pronounce it the best course ever offered to the teaching profession, and all teachers wishing to advance in their profession should immediately avail themselves of it. Enclose stamp for reply.

Surest and Quickest Way to Cure Foul Brood.

A. M. BARFIELD.

According to promise I will try as best I can to give you my idea as to the cause and cure of foul brood. In the first place it is a very contagious disease, and is often caused by negligence. If the hive is permitted to remain in a very warm place, exposed to the sun the bees will naturally hunt for a cool place, and will leave the brood chamber and the brood will perish in the combs, and if permitted to stay will cause foul brood just the same as filth will cause cholera. Some times it is caused by the combs getting pressed together in such a shape that the bees can not give the brood the care that they should, and it will perish and become very offensive, causing foul brood to take hold, and often it is the case that it is called worms, or destruction by worms. If a person does not know what foul brood is and has a case let him open a hive containing it, and he can soon tell it if his smeller is in good trim.

The first case I ever saw was while extracting for a man by the name of Turner, near the town of Kaufman, and I opened a hive, and oh, what an offensive scent, something like a dead horse. I told him I did not know anything about foul brood only what I had read, and according to my judgment it was foul brood, and if it was he would soon be out of the bee business, and sure enough he was, and so was I, for I just came home and extracted my honey, and very soon I was in the same fix, and I saw that there was only one chance, and that was to burn all that were affected, and I only found one out of forty that was not so affected. I burned them all as soon as I could start a fire, and I arrived at the conclusion that this was the surest and cheapest way to rid my bees of foul brood. A. M. BARFIELD.

Stone Point, Texas.

Friend B.—My experience and yours concerning the origin of foul brood is a little different. It is my experience that there are no known cases where foul brood ever originated in this country. It seems to me that if your causes were

right any bee yard might have foul brood at any time, while it never has visited many places. I have tried to start foul brood in every way that man could think of and failed in every instance. There is no stage of putrefaction that will start foul brood, or at least I have failed to start it, and I have piled up brood in great heaps to rot, and allow bees to visit it, and placed it in hives containing healthy brood and bees, all rotten and full of maggots, and there was never a single scent of foul brood produced. At one time I had about 100 colonies drowned, which were heavy with brood, and it all soured before I could attend to it, and I heaped the combs and brood into a stack, and in about three days it could be smelled a long distance, but no signs of foul brood ever appeared. Your cure is a good one, sure.—Ed.

A Peculiar Season.

L. B. SMITH.

Take the season of 1903 up to the present, and it has been one of the most peculiar for the apiarist that I can ever remember of seeing. The spring opened up early and promised all that heart could wish, from an apiarist's point of view, and the bees built up with astonishing rapidity, and many swarms were reported as early as the first of April, so all went smoothly up to the first of May, and many of our best colonies were nearly ready to extract, and we were getting our honey cans and other fixtures ready to harvest the largest crop of honey we had ever taken, as the season was a month early, but on the above date we found old mother earth mantled in a fleecy sheet of "jack frost," and ice had formed in tin vessels nearly to the thickness of a knife blade, and all was as still in the apiary as grim death in mid-winter. Then such a destruction of drone, and even worker brood I never saw before. Strong colonies that had from 50 to 75 pounds of honey were in a starving condition within three weeks' time. Many big first swarms actually starved to death (not of my own, however), and I fed over a barrel of sugar in the month of May to prevent actual starvation, and had to unite many new swarms to save them. All colonies by the first of June had become comparatively weak, and I said to myself, "All swarming is done for this season, but we shall see what the future brings forth. June opened up warmer with a few "April showers" that seemed to put new life in all vegetation, and the wild china gave the bees a little taste of new honey, which started brood rearing as if spring had actually set in anew. This was closely followed by poison oak and mesquite bloom, which furnished a bounti-

ful supply of pollen and a slow flow of nectar. By the first of June the bees were again attacked with the swarming fever, and a good many swarms were reported, but like most good things, this honey flow was soon over, and the eighty-seven full colonies we had left we only gathered 160 gallons of extracted honey. And again, robbers were plentiful and drone brood being destroyed. A little "honey dew" was being gathered in the early part of the day, but hardly enough to keep bees with young queens from destroying their drones. So I again says to myself: "The swarming is at an end for 1903 this time, sure." But we shall see where we are in this swarming business. I had been watching the sumac buds for the past six weeks, hoping by moving a part or all of my bees some ten miles away to where this plant was plentiful, to secure a crop of honey from this source. By the latter part of July the weather became showery and all indications pointed to a good long flow. The night of the second of August found us on the way to the sumac forest with a load of bees. We reached our destination safely, and had the bees on their stands ready for work before the first streaks of day appeared in the east, and it made our hearts bound with joy when we saw the bees make a rush for new honey and pollen long before the sun was up next morning. But from one cause and another we only got fifty-one of the ninety odd colonies moved, but we soon saw from the amount of pollen being brought in and the large amount of drone brood started that swarming was again near at hand, so we commenced giving room and cutting out queen cells, and by hard work and close attention we kept down swarming, but our log gum and box hive neighbors reported a great many August swarms. From the fifty-one colonies moved we secured 153 gallons of as fine, thick honey from the sumac as one could wish to see. I am now debating in my mind as to when the swarming season commences and when it stops in Texas. At this writing it is showering,and should it continue a few weeks I should not be surprised if we should not have a few September swarms. While the season has not been all we could wish for, yet we have learned some valuable lessons from the peculiarity of the season, and we hope to profit in the future by the lessons learned.

Rescue, Texas

THE SOUTHLAND QUEEN.

PUBLISHED MONTHLY.

E. J. ATCHLEY - - Editor and Publisher.

Application made for transmission through the mails as second-class matter.

BEEVILLE, TEX., SEPTEMBER, 1903.

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There has been a great fatality among the bees in some places west of Beeville for a couple of months. At first I thought it to be paralysis, but after more close examinations I am sure the bees have been getting some poison honey from some source, and I am led to believe it was from night shade. We have been having more rain the past year than for many years past, and this has brought many plants into bloom that did not bloom during dry years. Night shade is a deadly poison, and I see it blooming in many places. If bees gather honey that is poisonous night shade likely furnishes such nectar. Some yards that I visited and inspected lost very heavy, and I saw dead bees by the bushels. The thin nectar brought in and deposited, unsealed, near the hatching brood, the young bees take a meal of honey as soon as they hatch and never live long enough to take a fly, and crawl out by the thousands, and some try to fly and fall and die, and some never attempt to fly. Many colonies that got considerable poison honey have died outright. I saw the queens sick and drones dying, showing conclusively, to me, at least, that poison was the cause. Some colonies died outright, bees, queens and drones, and left a heavy store of honey in their hives. This year has been the first that I have seen this thing in this county to amount to anything. I only saw a little touch of the same thing a few times. I have noticed bees dying from poison honey in Tennessee many years ago. I trust that the trouble is now over and that none have lost enough to discourage them.

After about three weeks of dry weather, which is our first for a year, rain begins to pour down again, and it is now raining, September 10th, while I write under a tent at the bee yard.

As we came along the highway to the bee yard, night came on, and

teams being tired, we camped by the roadside, and desiring to get an early start next morning, we arose early, and by moonlight I went out to get the cow to milk. (We take a cow to get milk for the children). I had to wade through tall grass up to my chin, and I stepped right on to a bees' nest, and they made a loud roar and I jumped away. At daylight I lighted a smoker and made for the spot, and found a huge bumble-bees' nest, the first I had robbed since my boyhood days. I took out about a wash basin full of brood and considerable honey for breakfast, which was as clear and sparkling as any bees' honey. There are few bumble bees in this country, and no white-faced hornets at all that I have ever seen.

The time for our bee meeting has been fixed for December 15th, which will likely be held at one of our bee yards on the Nueces river, where we can all have two days' outing—fishing, boat-riding and a real old enjoyable bee-meeting. We will start from Beeville on December 14th, so come one day ahead that we can reach the bee yard on the 14th, and if you reach Beeville on the 13th it will be all right for those coming in on the train, and a way will be provided for all to go.

We have had less robbing among our apiaries this summer than usual, and I lay it to getting the colonies all strong and leaving them severely alone during the dearth, and no robbing rampages have occurred.

We are doing but little work with the bees this month, but we are making supplies for next season, and soon requeening for next year's crop will begin.

Bees are swarming in some localities where pollen is coming in freely, and where honey was not taken close. Such swarms will likely be as valuable for next year's crop as spring swarms.

I will state for the information of those interested that our son Charles was married to Miss May Thompson on Wednesday, August 26th. Charles had his house and two apiaries ready, and together he and his queen will soon be hived near Lapara, Live Oak county, looking after their apiaries, and we have to record them as bee-keepers right from the start. Charles is 25 years old, just half as old as his father, who was 50 on the 3rd instant. Our old cook says she has cooked four wedding dinners for our children, Amanda, Willie, Charlie and Leah, and hopes she may live to cook for the others.

Our friends near Beeville have been imposed upon about honey cans this season, and when most

of the can factories went into a combine and put the price of cans up we did not buy, but now we have found a new can factory that say they will not combine, and cans can now be had more reasonable, and we now have a shipment on the road, and by next season we will furnish cans at old prices.

I have learned that some cotton farmers have been poisoning cotton with arsenic and honey to kill boll weevil, but I hardly think this was the source of bee poisoning, as some apiaries suffered that were not near enough to cotton to get the poison.

There has been a lull in the honey market for a month and some buyers have gone back on their contracts, which has caused great disappointment to many bee-keepers, and some have almost suffered to the extent of losing their reputation by the buyers not taking their honey according to agreement, and poor men cannot meet their debts with their honey on their hands and a glutted market now staring them in the face, while if they had not contracted their honey they could have sold to their own customers long ago. My advice is, as before: Sell your own honey direct to your own customers, or at least do not contract, but sell for cash as soon as you get ready, and avoid all such trouble

At 6 Cents Per Pound.

C. W. HARLFINGER.

Enclosed please find money order for $1 in payment for my subscription to the Southland Queen for one year. I think my subscription expired in July, 1903. I have tried to get you another new subscriber in order to get one of your premium queens, as per offer made me some time ago. I have failed so far, although there are some bee-keepers here that are in need of a bee-journal very much. I have been selling comb honey at the grocery stores here at about 8 cents per pound. Another party started out peddling his goods at 6 cents per pound and ruined the market for a while. Now these same people say bee-keeping don't pay, and they can not afford to take a bee paper, etc. I have never heard of a successful bee keeper that retails comb honey at 6 cents per pound.

I started bee-keeping about three years ago with three colonies; have increased to thirty-seven, nearly all Italians, and I have made my expenses and a few dollars over. I am keeping bees in connection with other business, and can give them but little attention.

Biegel, Texas.

[Friend H.—Your experience is right along the same old line we have had to contend with for years, and unless we can induce such bee-

keepers to take bee papers, they will always be in the way and ruinous to the honey market and to the bee-keeping industry. Let us all try to remedy this matter in our respective neighborhoods. I would almost be willing to sacrifice the subscriptiou price of the Queen in order to put a stop to such things, and if you will send me the names of such bee-keepers and 25 cents for each one I will send the paper one year to all the names of those careless bee-keepers, and likely next year you will not have this thing to contend with. This applies to all neighborhoods.—Ed.]

Wants It Weekly.

O. L. CARNEY.

I enclose herewith $1 to pay one year's subscription to the Southland Queen. I would like to see the Queen a weekly instead of a monthly. I believe if this matter was properly agitated there would be found enough loyal southern bee-keepers who would be willing to lay hold of this matter in a business-like way, and devise some means of reaching this desired result. Why not start the ball to rolling? Don't call on me for suggestions, for I haven't any.

Shreveport, La.

[Friend C.—If the proper interest be taken by our noble bee-keepers the Queen could come out weekly at any time, but at present we will have to put up with monthly visits.—Ed.]

Advantages of Organization.

I write you to-day in regard to the coming bee-meeting in your city. As it has become part of my duty while here in this position at the college apiary to organize all the bee men of the state, I am anxious to correspond with all the officers of such associations as yours.

It has been our object to organize all the bee men into one great body, and that we have done in the following way: The bee men are to organize local or county associations everywhere, and they are to become members of the Texas Bee-Keepers' Association at the same time, and also then belong to the National Bee-Keepers' Association. This is done just as we join the National in a body. First the local associations fix their membership fee, say at 25 cents each, to meet some of the expenses that might come up. Then to this is added the sum of $1 for membership to the Texas Association, to which every bee-man ought to belong. Then 50 cents of this sum is sent to the National by the secretary for membership there.

Thus you will see that all the bee men in the state can be organized, and that very profitably, too. Then the members have the privilege of a reduced rate to the bee journal subscriptions if ordered through the secretary. All this

taken into consideration it is a great thing for the bee-keepers.

I am expected to attend all these meetings and to tell all about these things, and that is my duty, but as we have no money available yet to defray expenses, I have been managing it in this way, as I am trying my best to help bee-keeping along all that I can. I can attend all these meetings, as I get my railroad transportation to them, but the people at the place of meeting will have to promise to entertain me while there. Of course we have always done that here in our grand state, but situated as I am here, all has to be agreed upon before it goes, so I write you. I would very much like to be with you and help all that I can in the meeting. Now, I would like you to write to professor Sanderson about this, requesting him to let me be there if that is your wish, telling him the time of the meeting and all about it, and he will be glad to know about it and have me go. Also please write to me and inform me about the dates of the meeting.

I was at Floresville a short time ago, and was present at the organization of the Wilson County Bee-Keepers' Association, and it was organized just as I told you. The Bexar County Association was gotten up the same way, and I was there also. Then I am going to attend the meeting of the Uvalde people soon, and will we not in time get all the bee men together? And just think what we will be able to do. And then we are all protected by the National, and all for such a small sum. The real membership will be $1.25 each, and that can be made back at once by taking two or more of the bee journals at the reduced rates.

I shall try to write an article on this organization question as soon as I have time, and let you get it out in a pamphlet. Tell us some of these things in your journal, so the bee men may know about it. Then when you meet you may be sure to get them all together.

Fraternally,

LOUIS H. SCHOLL.

College Station, Tex.

[I give Mr. Scholl's letter that it may speak for itself. Our local meetings all ought to respond. Our South Texas will meet December 15th, as stated in editorials, and of course we will have you come and take as good care of you as we can, free of charge. Get to Beeville on December 13th.—Ed.]

Additional Editorials.

When the nights get cool and the bees quit gathering honey for this season, then is the time to equalize stores and see to it that all colonies have 15 to 20 pounds, or sufficient honey to put them through until next April.

I believe that beeswax will remain up in price better this fall and winter than for years, as there seems to be a demand greater than the supply.

Now is a good time to subscribe for the Southland Queen, as I shall now devote more time to the paper, and my contributors will also.

I understand that Mr. W. H. Laws has lost very heavily from poisoned bees, and A. J. Mills lost quite a number of colonies, as well as several colonies being reduced to nuclei.

Several Middle Texas bee-keepers have promised to be at our bee-meeting on December 15th, and we will try to arrange for a large attendance and a good time. Everybody is invited to attend.

Cause of Bee-Paralysis.

E. J. ATCHLEY IN GLEANINGS.

As promised some time ago, I will give the real cause of bee-paralysis. Having been troubled more or less with this disease for about thirty years, and having read everything that came my way concerning it, and tried every known remedy without success, I set out about five years ago to learn first the true cause, and then get the help of the masses in curing it, if really we need a cure. By close observation, along with my almost every-day work with the bees, I have found out the true cause of paralysis, which is as follows:

It is caused by bees preparing themselves to feed larva and no larva to feed, or not enough on which to bestow the amount of chyle, or prepared food, and the nurse bees will not throw out or deposit this chyle, and soon the mixture of pollen and honey begins to ferment, or make the nurses sick; and it is owing to how much chyle they have prepared as to how bad the bees will be affected. This discovery was made by closely watching the bees that happened to become stimulated out of season, or at times when queens were not laying, such as moving bees in winter, or disturbing them in any way at such times as they ought to be quiet. What puzzled me most was that the Cyprian and Holyland bees did not take paralysis at all, or very seldom at least, and these bees are such great breeders that the queens begin laying at the least excitement, in season or out of season, and furnish plenty of larva on which the bees can use the prepared food, and consequently they are always healthy. Make a colony of Holyland or Cyprian bees queenless, and they take laying workers in twenty-four hours, or before the nurse bees begin to suffer with a supply of prepared food. I have had hundreds of nuclei take par-

alysis, when Italian bees were used, at times when there was an abundance of pollen coming in and honey sufficient to stimulate brooding, and the Italian bees are not such great brooders, or so quick to take laying workers; hence the bees are diseased, because they have no place to use the chyle, and soon swell up and die.

It is very evident that it is bees that desire brood, and which would be great nurses, that take paralysis worst; but the laying faculties, queens or workers, as the case may be, fail to supply the brood, and colonies are affected just to the extent of prepared food not used, and this is why there is so much difference, and so many stages of this malady.

Changing queens has been recommended a great many times, and in many cases it proved effectual, inasmuch as the new queen would soon supply a different working force, and the new queen perchance a better layer, and furnished more larva to be fed, but in cases where the new queen was no better than the one taken out, the matter was not remedied, and paralysis kept on. If there are enough of the old bees left to start up a colony which have not been poisoned by the chyle, when new honey and pollen come in, then the queen is stimulated to a greater degree, and plenty of larva are furnished to take up the food prepared by the nurses, and paralysis stops at once. Bees in cellars sometimes get excited from different causes, and the bees at once begin preparing chyle, but the excitement does not last long enough for the queen to begin to lay, and disease begins, and sometimes nearly ruins the colony before brood-rearing begins. I have seen hundreds of Italian nuclei, which were queenless and broodless, make queen-cell stubs all over the pollen portion of their combs, and nearly all the bees swelled up with nurse food, and all soon die, because they had no place to use the food. Salt has been used as a remedy, but I know that it is not worth anything, as paralysis is not really a disease, but only a condition brought on by each individual colony, more or less, according to their several characteristics, or breeding propensities, out of season. I think that if bees could be placed in cellars without pollen, absolutely, there would never be a single trace of paralysis, no difference how much excitement they received. There is no such thing as paralysis being a catching disease, as there is nothing to catch, and a colony affected can be placed over a healthy one, and where there is brooding going on, and all is well, no more sickness and death from full and bloated stomachs will result.

In 1880 I suggested to A. I. Root that I thought that pollen was the

cause of what we then called the nameless bee disease, and I came pretty close to it, but did not go far enough, as certainly, if there was no pollen there would be no paralysis. Bee-keepers all over the land have just about used all the remedies, to my notion, and this, too, without knowing the cause, and that is, changing queens, placing sick colonies over well ones, etc. After once knowing the true cause, some practical apiarists over the land may be able to figure out a complete remedy. If paralysis were a disease then the queens and drones would have it, too, as they all sleep in the same room, eat at the same table, sip out of the same cup, as it were; but nothing except the workers are affected; and as drones and queens are bees, and it being mature bees that get sick, certainly all would be subject to the same affliction; but there is no disease, and no danger of one colony catching it from another. If I had a few foul-broody colonies on which to experiment, and could get a place where there would be no danger of its getting spread to other bees, I would be glad to try my hand in ferreting out its cause also; but as foul brood does not originate in this country, and as there is no condition known under which foul brood could start in this region, I think it would be quite difficult to get at the cause unless one were where its origin is.

Beeville, Texas.

[In addition to the above I will say that I have been making further experiments and find that my conclusions are correct; and as a remedy for paralysis, I will suggest that frames of brood, unsealed, be given to colonies so afflicted, and when enough has been given to accommodate the bees with the chyle prepared a cure will be the result. Any way to get brood for the bees to feed that you think best to give will likely result in a cure.—Ed.]

OUR SCHOOL

BY THE EDITOR.

Will you be so kind as to answer a few questions for me? How late in the season is it safe to take honey from bees? Can all the honey in the supers be taken at any time without injury to the bees. Some of our supers are now about full of honey. Will it be safe to take it? Will the bees store enough in the lower part of the hive to do them through the winter, or is it best to leave some in the supers? Give me some advice about wintering bees? Should I come up some time will you show me how to keep bees from swarming too much—how to teli queens?

R. H. TURNER.

Rosita, Texas.

Friend Turner—You can take honey from the supers at any time, or until frost, only I would see to it that the bees have plenty honey, 15 to 20 pounds, in their brood chambers. Some bees will store nearly all their honey in the supers, and should supers be taken

off without heed to brood chambers starvation would assuredly be the result with all colonies that did not have sufficient below, unless they were looked after by some one. There is not enough about wintering bees in this latitude to make a chapter, as the only thing to be observed the last round, about November 15th for this latitude, is to see that all have plenty honey. Put on covers snugly and leave them alone till next spring. If you come up I will certainly show you what I can consistently about wintering bees. We think of calling a bee meeting late this coming fall and we will be glad to have you attend.

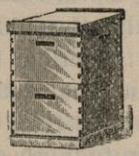
Yours of recent date just received. I am in a quandary about my swarm of bees; they show signs of being queenless, and I examined the hive today without finding any queen, but they have a good deal of sealed and unsealed brood in their hive. What I would like to know is whether they will begin to build queen-cells. I wish you would tell me what the eggs look like. How can you tell queen-cells from the other cells, and I don't understand that grafting process, either. Would a three-frame nucleus fill the hive between now and winter?

MRS. ANNA ORR.

Anodarko, Oklahoma.

Mrs. Orr.—If your colony has unsealed worker brood they likely have a queen, or at least she could not have been out long. If your colony refuses to start queen-cells, and they have not been queenless so long that they have laying workers and are hopelessly queenless, they will start queen cells if they have larva from which to raise queens. A worker egg, or an egg laid that will make a worker or queen, is like a little white kidney standing on end, and if laid by a good queen will be standing erect. Eggs laid by workers are much the same in looks, only a little shorter and thicker, and not attached to the bottom of the cells as regular as queen eggs. Queen-cells look somewhat like a blackberry in shape, and stand out from the combs. Grafting is using larva in such cell cups as we desire to raise queens. Your nucleus will hardly build up after this time of year.

I have a colony of bees tiered up like this:



There is only one queen in the two hives. I think the queen is in the bottom hive. I want to make two colonies out of the lot. I think I can take one hive off and introduce a queen and have what I want (two colonies out of one). There are plenty of stores for two colonies. I desire instructions how to accomplish this. The bees are in eight frame dovetailed hives. If I have to take the queenless hive off the other for a few days let me know. Should I put a frame or more of brood in the queenless hive when I separate them? Give me full instructions. I wrote you several times, but only heard

from you once, and that was the promise of some bee literature. I have dark brown bees and only two hives, one of which is the double hive. Will I have time to Italianize the hive before cold weather? A. B. GRAVES.

Malden, Mo.

Friend Graves—You can divide your colony as you suggest if there is a large colony and plenty of stores. I hardly think it would be advisable for you to undertake to raise queens and Italianize after September 1 in your locality. There is hardly any instruction necessary as to dividing your colony, only see that both portions have as equal division of bees, brood and honey as you can well make and introduce a queen to the queenless half and the job is over. We often make increase much the same way.

Please send me a sample copy of the Southland Queen, also your catalogue. Is it too late to put in queens. I have three colonies started, and shall take 95 to 100 pounds off the three.

A. F. EILENBERGER.

North Tonawanda, N. Y.

No, it is not too late to introduce a queen to each of your colonies, but rather late to rear queens in York state.

Bees are swarming in this locality and many colonies are hanging out in front of their hives—what is the matter? Prospects are good for fall, and I never saw so much broom weed, and if the weather is favorable it will last till Christmas. I tried salt brine for paralysis, and if made too strong it will kill the bees. It is our duty to support the Southland Queen. The "Work Among the Atchley Apiaries" is instructive, and my advice is to keep it up and before the bee-keepers.

H. BOOTAN.

Richmond, Texas.

Friend B.—Your bees lay out on account of heat, or being crowded for room, and this is helping to incite swarming. Work among our apiaries will be kept up.

Preventing Swarming When Extracted Honey Is Produced.

L. STACHELHAUSEN IN GLEANINGS.

In Gleanings of February 15 it is asked how swarming can be prevented if the colony is worked for extracted honey, and whether the forced-swarm method can be used or not. I know a number of plans for this purpose, and which one will be the best depends on the location.

I use very large hives, and they prevent swarming to a great extent, but not under all circumstances. In my locality the bees commence breeding early, and it depends on the condition of the season at what time the colony will develop to their full strength. As soon as the main honey-flow commences all danger of swarming is past. This is so in every location if the honey-flow is fast and good, while a slow-flow is favorable for swarming. During a poor spring my colonies develop slower, and the queens are increasing in egg-

laying till the main flow commences; consequently I get no swarms from the large hives, while ten-frame hives may swarm a short time before the honey-flow. During a favorable spring the colonies develop much faster, and sometimes I found that a month or more before the main flow some of the queens laid 4,000 eggs daily with a light honey-flow still continuing. Under such circumstances this colony will soon swarm, even if kept in the largest hive. In this case I use artificial increase, and use the plan recommended by Doolittle. Brush or shake colony A on empty combs or foundation on the old stand (for comb honey on starters). The brood combs without any bees are set on the place of colony B, and this receives a new stand, C. A fertile queen is introduced to B; or if such is not on hand a ripe queen-cell. Under such circumstances these three colonies will give more surplus honey than two colonies if we had them undivided.

I never extract any unripe honey or any honey from the brood nest, but always give plenty of super room. During a light honey-flow the bees will carry the honey to the supers to make room for the brood. The fast and good honey-flows contract the brood-nest; if not enough, supers are given.

If the colonies are getting of such a strength that swarming may be expected for some days before the main flow commences, or if the main flow is not so good as to prevent swarming, other plans can be used.

1. If queen cells are already started we can easily tell when the first cell will be capped; then it is time to manipulate. We remove the hive from the old stand a few steps and set in its place a hive with empty combs or foundation. From the brood combs the most of the bees and the queen are brushed or shaken into or in front of this hive with the empty combs. The brood combs and some of the bees which remain on them are returned into the old hive, and this is set close to the side of the other hive. (It can be set on top or behind it just as well). As this colony will remain weak for some time the first queen which hatches will destroy the other cells. Now we can unite again. Of course one of the queens must be removed. If we are willing to remove the virgin queen it is not necessary to hunt her up. At evening the places of the two colonies are changed. One hour later, when the bees have ceased to fly we change the places again. The old bees which have entered the hive with the young queen will kill her during the night in nine cases out of ten. (It is a case of handling hives instead of frames). The next day this colony is set on top of the forced swarm, a wire

cloth between the two, which can be removed six hours later. The whole manipulation is finished in six or seven days.

2. If no queen-cells are started, the first young queen will hatch in ten or twelve days. During this time the colony will get strong, and very probably would send out an after swarm. Some of the bees will be old enough to do field work, and could work to better advantage in the forced swarm, which is now getting weaker every day. For this reason we remove the colony with the queen-cells in about eight days to the other side of the swarm, and, if necessary we brush or shake some of the bees in front of the swarm. As soon as the queen-cells are destroyed we unite again as above.

3. We find the queen of the colony, and set one brood comb with the adhering bees, but without the queen, in hive A, on the old stand; about half the bees are shaken into this hive. The other brood combs with the queen are placed in hive B, on the side of A. B is hereby weakened so much that the queen-cells are destroyed by the bees in about five or six days. Now we destroy all the queen-cells in hive A, and about half an hour later the two colonies are united as above. This plan takes less time, but the old queen must be found, and a strong swarm on the old stand will do better in honey-gathering than this colony without a queen.

4. A few days ago I received a letter from a bee-keeper in California, in which he gives another plan, which I think is worth experimenting with. With some modifications the plan is as follows: We make a forced swarm as at one and two. On top of this story we set a board with openings closed by double wire screens; the hive with the brood combs, and enough bees to protect the brood, on top of this. If no ripe queen-cell is on the combs, such a one can be introduced. The hive has its separate alighting hole. When the young queen is out she will get fertilized over the double screen. Now the two colonies can be united again by removing the board. As they have the same scent this will not be difficult. One of the queens will be killed by the bees. Whether this will always be the old one, as my correspondent hopes, or not, I am not able to tell, but it seems probable to me. This plan can probably be used when comb honey in sections is produced.

In this way the forced swarm method can be used for extracted honey, and can be done with less trouble than for comb honey, as the old combs can be used. In my locality I do not need such manipulations. Either I get no swarms at all from my large hives, or I in-

crease my colonies some time before the main honey-flow, making three out of two a la Doolittle. If more increase is wanted, the following is a good plan in my locality:

Some colonies are divided into small nuclei, giving a ripe queen-cell to each. From the other colonies forced swarms are made as above. Eight days later all the bees are shaken and brushed to the swarm from the brood-combs. These contain now capped brood only, and are used for strengthening the nuclei. Of course the queen-cells on them must be destroyed. With such brood combs containing capped brood a small nucleus can be raised to a strong colony in about two weeks.

I could give the reasons for all these procedures, but our "practical" bee-keepers and editors do not like "theory," and I have learned that our best men can't understand "theory" from lack of preliminary knowledge, so I had to be very prolix and take much space. For this reason we continue to manage our bees according to "prescriptions," and without knowledge. If the conditions are somewhat different, then prescriptions are "no good." Please do not blame me.

Converse, Texas.

An Indian War Dance.

JOSIE WEBB.

No doubt, gentle people, you have all witnessed many kinds of dances, but I think it doubtful if you ever saw an "Indian War Dance" I never did until a few short months ago, and I am not sure that is the proper name for what I saw, but nearly all those who participated in the "hop" were Indians, and it looked more like war than peace to me who was an impartial spectator of the whole performance. But we shall not fall out over the name. I will simply sketch out the incident and you may name it and take it.

It happened on the day my bees arrived, when I was strutting about as proud as a peacock, trying to turn my Webb's "tickle-box" over that the neighbors percieved that there was something wrong over at the Webbs', so they straightaway came over to see about it.

Now, I am going to have to tell on myself. That part I don't like, but as that Webb of mine more than half suspects the truth I might as well own up and ease my mind, for it is not well to have a secret hanging between hubby and me. Now, when I ordered those bees I said, "Send the bravest bees you have, for I want them as a home guard," or something to that effect. The order was filled to perfection. Now then, back to my story. Our good neighbors arrived upon the scene just in time to witness the "opening up" performance, and perhaps you would like to hear the conversation:

Neighbor (peering over Webb's shoulder)—Well, it's a swarm of bees, ain't it?

Webb (placing some empty combs in the hive, preparatory to putting the bees in)—Yes, a fine colony of Holylands.

N.—What! Holylands? Where did they come from?

W.—These came from a friend at Beeville, but he had them sent over from Jerusalem.

N.—Golly, they must be fine. What will you take for them?

W.—They are not for sale.

N.—I'll give you $5 for them before you open the cage.

Then as he got no answer he asked: "Will you take it?"

W.—No. I would not take $25 and do without them.

N.—What did they cost you?

W.—I don't know yet; you will have to ask the widow; she is the one that sent for them.

N.—Can't you order a swarm for me?

W.—Yes, but unless you have handled bees before you would not want the Holylands; they are too mean about fighting for a beginner.

N.—Oh, I have handled bees; they never sting me. I can roll them about just any old way, and the first one has got to sting me yet.

W.—Maybe so, but they were not Holylands. I doubt if you would have these at any price after working with them a while.

N.—I am not afrid. I have had them crawling all over me when everybody else had to leave the place, and I never was stung.

W. (lifting out the frames of bees and placing them in the hive) —Look out! There goes a mad bee. Hide out little ones, the bees will catch you.

"Mama! Oh, me!" yelled a five-year-old, as she went dancing off to her mother in double-quick time, for she opened the "ball" after being greeted on the cheek with a holy kiss, but before she got to her mother's sheltering arms zip went another bee, and another county heard from. Still another wild, Comanche yell, and the poor mother soon had more of her brood crowding, dancing and screaming around her than her protecting wing could cover. But before she could get to a place of safety with them half a dozen more, both men and boys, were yelling bloody murder, our brave neighbor included, and a perfect pandemonium ensued. Everybody dancing and yelling until the whole elements were blue, for a block or more around, and they did not use good grammar, much less words found in the Sunday school lessons. Even Jack joined in the fun with a couple of old tomato cans in each hand, making all the music that could possibly be gotten out of them, for he will never see anything but the funny side of the picture, but at last they

all found a hiding place and crept into it, while I had corralled all the women and small kids into the kitchen and closed the doors on them. Webb could scarcely work for laughing, but when he got them all fixed up ship-shape and found all his company the sun had set. Our brave neighbor was found in the coal box, and a more comical sight just then was not to be found.

"When shall I order a colony for you, neighbor?" asked Webb, trying hard not to laugh.

"Not at all, if they are all like yours."

"You may have mine for twenty-five cents."

"I would not have them as a gracious gift, and don't you dare ever say bee to me again," shaking his fist and looking daggers at Webb.

So "bang went the gun and they all ran but one," and I will follow suit."

Three Months' Caging of a Queen.

M. A. GILL IN BEE-KEEPERS' REVIEW.

Since about the middle of last July a party here had a three-frame nucleus of black bees into which he put a self-introducing cage containing an Italian queen from the south. He gave it no more attention further than to turn back the quilt after three weeks to see if Italian bees had made an appearance, and as he found none, he naturally concluded that the nucleus was queenless.

On October 10th I came in possession of the nucleus, and, upon examination, found the queen still caged (without an escort) and that the bees had evidently built comb over the open end of the cage—had, in fact, imprisoned the queen instead of liberating her at the proper time.

Thinking the queen had been confined long enough, I liberated her. The bees at once balled her, and would have killed her had I not smoked them with tobacco smoke until they fell from the combs.

On the following morning I found the bees and queen in a passive mood, and at once commenced stimulative feeding to see if the queen still retained her natural functions. On the third day I found her laying. I increased the feeding and she proved to be a prolific queen. By Christmas she was mother of a good colony.

Does this not show that it is not the length of time that a queen is caged that makes successful introduction possible; also that long confinement does not always make a queen incapable of being a good layer; also that forty-five days is not quite long enough to fix as the average length of a bees' life during the working season. For surely this was during the working sea-

season, and the nucleus was still a fair three framed nucleus. There was no doubt some brood in the nucleus when the caged queen was introduced, but there is still nearly seventy days left as the age of the younger bees.

I have thought for some time that we have families of bees whose natural life will reach sixty days, and if this be so, here is a trait that can be, and should be, established by careful breeding.

Never mind the number of gold rings, nor the length of tongue, nor how bad they sting—but a queen breeder who can assure me that his bees have an average life of sixty days can sell me a lot of queens.

Longmont, Col.

Building Up Strong Colonies in the Spring.

H. HORNOR IN AMERICAN BEE-KEEPER.

This subject has been brought up a great many times, but for some beginner who has not seen any of the former articles this may give him one or two hints which may be useful.

A crop of honey depends mainly on the strength of the colony; of course there must be pasture for them to gather their stores from.

The latter part of February, when the bees commence flying freely, I set out some very fine cornmeal in a warm, sunny place. The bees go to work at it with a will and carry it into the hives, working as late in the afternoon as it is warm enough for them to fly. Some bee-keepers put a little honey in the meal, but I have found the bees will not take any notice of the honey as long as they can get the meal. They seem to be very anxious for pollen in some shape, and if they cannot get it from the flowers they are glad to have this substitute.

As soon as the weather gets warm enough to open hives, examine the condition of the bees and see if the queen is all right. If I have any frames of honey, I put them in hives having the least supplies, and put feeders on all hives examined. The feeder I use is a home-made one—a cigar box divided lengthwise into three sections, the divisions coming within three-eighths of an inch of the cover and having the bottom corners cut off to allow syrup when poured in to enter each section.

Next cut one end three-eighths of an inch below the cover to let bees enter the box; coat the inside with parafine; put one small nail in cover; bore a half-inch hole in one corner of the cover opposite the entrance, to put a funnel in for filling with syrup. I put this feeder in the front end of hives. This brings the hole in the cover close in one corner.

All hives are sloped down in front one-half of an inch. The feeder in this position leaves the

open end in the highest part of the hive. The feeder will hold more in this way without running over. An ordinary cigar box will hold one quart. Cover the feeder with several thicknesses of burlap or old bags.

When feeding slip the cover off a little, and turn back the burlap to uncover the augur hole, insert the funnel and pour in a little feed (from one-half-pint to a full pint, according to the strength of the colony) and replace the burlap. No trouble with bees coming out. If there are any bees in the feeder it does not make any difference; they will walk up the partitions inside.

The syrup should be slightly warmed and not too thick—just a little more than sweetened water, and all the feeding should be done towards night to prevent robbing.

In about two weeks examine again, and spread the brood a little until the brood chamber is full of brood, then put another story of drawn combs on, raising a few of the solid frames of brood up from the lower story to the top one, putting drawn combs in their places.

By this method I have had two brood chambers, holding eight frames each, boiling over with bees and in first-class shape for the honey-flow.

Mt. Holly, N. J.

FERTILIZING QUEENS

In Small Nucleus Boxes Attached to the Side of a Small Colony.

FROM GLEANINGS.

On page 536, June 15, one of our correspondents told how he had succeeded in getting queens fertilized in small section boxes attached to and made a part of a strong colony run for extracting. This plan is substantially the same as was advocated by Swarthmore a year ago. I promised to give it a test in our yards, and report. I forgot all about the matter until I received the following communication from Mr. Doolittle. Before I tell how the thing worked I will give his letter right here:

Friend Root:

Have you tried the plan of rearing and fertilizing queens in full colonies as given on page 536? You said you were going to. I tried it quite extensively on four colonies, and it proves, as I half expected, to be the same as fertilizing in upper stories over queen excluders only that, so far, I have not succeeded in having a single queen thus fertilized. They take them and keep them all right until they are from three to six days old, when the bees begin to persecute them, and finally kill them or drive them off as they do drones. I hope you have tried it and will report.

G. M. DOOLITTLE.

Borindo, N. Y., August 4.

Yes, we tried the plan, but it was a most complete fizzle. Like our friend Doolittle, we did not succeed in getting even one queen fertilized. I have no doubt it can be made to work under some circumstances; but because of its unreliability we feel that we can not afford to fuss with it. We succeed best with a nucleus, not less than one full-sized L frame, and two are better. The plan that we used last year successfully, and are using this year, is to take an ordinary eight-frame upper story and divide it off into three compartments lengthwise. The bottom is covered with wire cloth. Each one of the compartments has a small entrance—one on each side and one in the end for the middle compartment. A frame of brood and a comb of honey with bees are put into each compartment, and the same is put on top of a small colony. The advantage of this arrangement is that it saves room in the yard, puts the nuclei up at a convenient working height, and during cool weather or at any other time permits the heat of the strong colony to rise up and keep warm the little cluster above. These nuclei can be treated in very much the same way as the ordinary two-frame nuclei, and cells or virgins that are given to them will soon develop into laying queens.

While some of our friends have been able to make a small nucleus work successfully, we have not. Even so successful a queen-breeder as Doolittle has failed. But even if he and ourselves could both make it work, after all would it pay? Those of us who have a large queen-trade must have a plan or method that will work, not once in a while, but all the time and under all conditions. When orders come in for queens they must be filled. It does not do to tell a customer, when the season is at its height, and all conditions are favorable for rearing queens, that he will have to wait three weeks or until the queens can become mated. If his hive is queenless he wants the queen right now or never.

The scheme of insurance for bee-keepers promoted by the British Bee-Keepers' association has passed its first year with satisfactory results to all concerned. Only one case came up for adjustment during the year, and that was promptly and satisfactorily settled. A new policy, covering the period between August 1, 1903, and August 1, 1904, has now been obtained, and premiums for risks under this policy have been payable since July 1. It is expected that the number of hives insured will be doubled this year, and we sincerely hope this expectation will be realized. Indeed, there is no reason why 50,000 hives should not be covered, to the advantage of the bee industry as a whole.—British Bee Journal.

The International Fair at San Antonio.

We are just in receipt of the Premium List for the Fifth Annual International Fair, to be held at San Antonio, Texas, October 17th to 28th, next. The premiums offered this year by this Association are very liberal, and have been increased considerable in live stock and agricultural departments, which ought to encourage the farmers and live stock breeders to make an effort to show the best they have. The premiums in the agricultural department cover both dry and irrigated farms, also very liberal premiums are offered for county exhibits. This ought to bring together one of the grandest displays of agricultural products ever seen in the State, for with the magnificent crop prospects this year farmers ought to be able to make a mammoth exhibition. The different cattle associations of America have recognized the good influence the San Antonio International Fair has had on the different breeds of live stock in the State, and to give encouragement to this Fair, have offered very liberal special premiums for their respective breeds.

The roping contest this year will be on a grander scale than ever before. This includes several roping contests, also relay races and broncho riding.

Any one desirous of obtaining a copy of this premium list can do so by addressing J. M. Vance, Secretary, San Antonio, Texas.

Farm and Ranch Contest.

WINNERS IN THE CONTEST.

In the $250 contest for local agents, which closed January 1, 1903, the winners of the prizes were as follows:

D. M. Jordan, Oglesby, Texas, number of yearly subscriptions taken, 75, prize $50.

M. A. Brown, Stone Point, Texas, subscriptions, 61 3-4, prize, $30.

A. E. Edwards, Greenville, Texas, subscriptions, 31 1-2, prize $20.

Geo. B. Simmons, Ben Franklin, Tex., subscriptions 26, prize $10.

L. Childs, Fairfield, Texas, subscriptions 13, prize $10.

M. Lister, Cleburne, Texas, subscriptions 11, prize $10.

Hattie B. Christie, Hammond, La., subscriptions, 10 3-4, prize $5.

A. J. Reeder, Granger, Texas, subscriptions, 9, prize $10.

Farmersville Times, Farmersville, Texas, subscriptions 8, prize $5.

A. S. Davis, McGregor, Texas, subscriptions, 7 3 4, prize $5.

K. McGinnis, Terrell, Texas, subscriptions 7, prize $5.

Green W. Butler, Mexia, Texas, subscriptions, 6 1-2, prize $5.

Perry Clements, Forney, Texas, subscriptions 6 1-4, prize $5.

Lulu M. Brewington, Rosebud, Tex., subscriptions 6, prize $5.

J. M. Fletcher, Atlanta, Texas, subscriptions $6, prize $5.

T. L. Haynes, Tioga, Texas, subscriptions 6, prize $5.

Sherman Democrat, Sherman, Tex., subscriptions 6, prize $5.

E. K. Rudolph, Van Alstyne, Texas, subscriptions 6, prize 5.

The remaining ten prizes of $5 each, amounting to $50, were divided among the following agents, each of whom secured five subscribers: E. G. Armstrong, Bartlett, Texas, $3.57; Minnie F. Armstrong, Gainesville, Texas, $3.57; T. D. Ball, Decatur, Texas, $3.57; H. A. Carpenter, Franklin, Texas, $3.57; Clarksville Times, Clarksville, Texas, $3.57; Thomas M. Danforth, Goliad, Texas, $3.57; A. F. Ernest Senior, Texas, $3.57; B. G. Haskell, Stockdale, Texas, $3.57; T. M. Harrison, Centerville, Texas, 3.57; A. J. Keith, Mabank, Texas, $3.57; C. A. Moore, Poolville, Texas, $3.75; Florence Sheasby, Elgin, Texas, $3.57; J. T. Triplett, May, Texas, $3.57; W. H. Webber, Lampasas, Texas, $3.57.

Im making the awards two six-months subscriptions or four three months subscriptions counted as one yearly subscription.

It will be noted from the list above that in many instances the commission and prize money received by the agent amounted to as much or more than the total sum sent him to Farm and Ranch.

Write for particulars of the new $250 contest, closing June 1, 1903.

ADDRESS

Farm and Ranch

Dallas, Texas.

Italians
Cyprians
Carniolans

Tested.....	$1.50
Untested...	1.00
Breeders...	5.00

E. C. GOODWIN
Dinero, Texas.

Beeville, Tex, is my money order office.

QUEENS.

If you wish the very best queens to be had I have them at the following prices: Untested, after April 15th, $1 each; tested $2, or good breeders $3 each, one year old. Safe arrival guaranteed. Queens raised from imported Italian mothers. Let me have a trial order.

L. B. SMITH, P. M.,
Rescue, Lampasas County, Texas.

HONEY CANS.

The new 3-6 and 12 pound friction top honey cans have been made the standard honey packages for Texas by the Texas Bee-Keepers' Association. Write me for the name of carload dealer nearest to you for all kinds of cans. Let me know your wants, as the honey season is coming on. I am also in the market for whole crops of first-class honey.

UDO TOEPPERWEIN,
438 West Houston street,
San Antonio, Texas.

HELLO!

Did you know that we can furnish you queens much cheaper than you can get them elsewhere, as good as the best. The Laws famous golden strain, three-band Italians, Atchley's fine strain of Carniolans, Cyprians and Holylands. Untested of any race, 50 cents; tested 3 and 5 band Italians, 75 cents; all other races $1. Quick shipment. Send for circular.

New Century Queen Rearing Co.
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