The Southland queen. Vol. IV, No. 9 January 1899

Beeville, Texas: The Jennie Atchley Company, January 1899

THE

SOUTHLAND QUEEN.

—PUBLISHED BY—

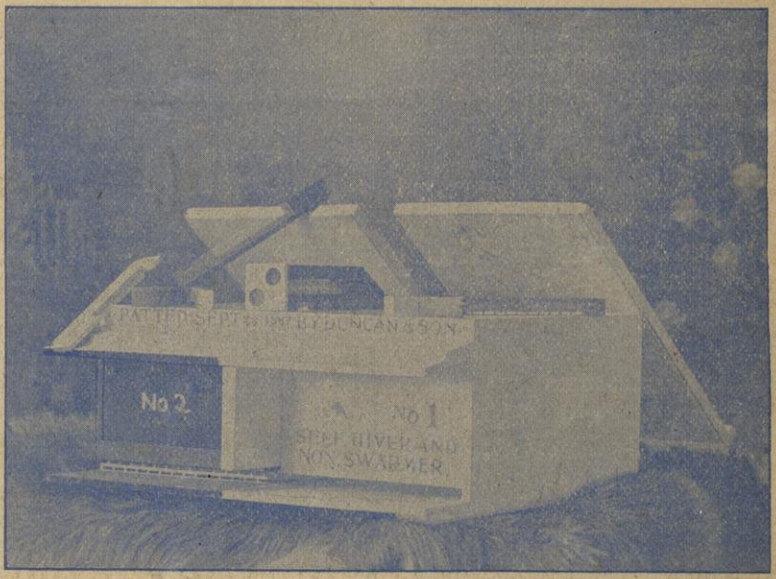
THE JENNIE ATCHLEY COMPANY.

BEEVILLE, TEXAS, : : : January, 1899.

THE SOUTHLAND QUEEN.

Published Monthly. **Devoted to the Exchange of Thoughts on Apiculture.** $1.00 Yearly.

Vol. IV. BEEVILLE, TEXAS, JANUARY, 1899. No. 9.



Self Hiver and Non Swarmer of A. Duncan & Son.

Directions For Using the "Self-Hiver and Non-Swarmer."

To The Jennie Atchley Co.,
Beeville, Texas.

Kind Friends:—

I appreciate your kindness in allowing me space for a cut of our hive in your valuable journal. I will make an effort to tell the readers of THE QUEEN how I handle 500 colonies of bees in our self-hiver with comparatively no help.

In early spring my queens are clipped in my out apiaries and slide No. 2 inserted with slot down and a block placed in front of chamber No. 1, and bees turned through chamber No. 2; they are left this way till I requeen them, or they are allowed to swarm. My home yard is allowed to swarm naturally, but is used for rearing queens for out apiaries up till swarming time. I rear a queen in every col-

ony in my home yard ready to introduce in my out apiaries before swarming time without weakening the colony in the least. This is a step in the right direction. My finest bees are in my home yard. When I see bees preparing to swarm, I insert slide No. 1 and tack a queen-excluder on chamber No. 2; when the swarm issues the queen passes through the gauze wire tube into chamber No. 2 and is trapped; the bees fly around for a while and sometimes settle, but will return and find their queen in chamber No. 2. They then seem to be in harmony. Slide No. 1 can be left in until the 7th day. If I wish on the 7th day I remove all queen cells except one, insert slide No. 2 with slot up and remove block from front of chamber No. 1. When I am away from home and a swarm issues my wife tacks a card on giving date.

A sure way to prevent an after swarm is to take out a frame with a nice queen cell on it, brush off the bees into chamber No. 2, take balance of frames, shake off bees into chamber No. 2, insert slide No. 2 with slot up, remove block from chamber No. 1 and tack on a gauze wire entrance-block. The first queen that hatches will destroy the balance of the cells, as there are not enough bees to lead a swarm. All bees that have been to the field will return to chamber No. 2. I think another season I can prevent after swarms without looking into a hive. My out apiaries are not allowed to swarm; as early as practicable slide No. 1 is inserted, the queens in 25 of the strongest colonies are set over into chamber No. 2 and given an empty comb in which to be laying. In five days they will have queen cells started in chamber No. 1; the queen is set back and the cells are set over into chamber No. 2; they finish them up just the same, then they are all removed except one just before they are hatched and given to other colonies, a frame of brood and bees is set over into chamber No. 2, the queen cells stuck down and slide No. 2 inserted and block removed from chamber No. 1.

I find I can produce the most honey by removing the old queen and uniting bees with the young queen. I then remove the entrance block, pull out the slide and I have an entrance 24 inches long and $\frac{5}{8}$ inches deep. I put on more sections and give them plenty of room. The loafing bees if any, are in empty chambers and not in the way of the workers.

I would like to explain more, but it will make the article too long. I dislike to intrude on good nature.

How to Increase When Swarming is Prevented.

How I increase when I prevent swarming. I go to a yard, make up my mind how much increase I want, 15, 20, or 30, take that many colonies of my best bees, insert slide 2, set over the queen in chamber 2, take a frame now from six other colonies and give the queen, replace all the frames with a frame of foundation and the other colonies will fill the extra frames.

When I used the single hive and they had the swarming fever almost the fifth of my bees would be queenless. That was when I used the Doolittle plan for comb honey. I am feeding out of doors now to keep my bees away from sugar boilings. Feed is cheap; syrup is only 15 cts. per gal. When I feed in the hive I lay a block in front of chamber 2 and set in my feed. If I have a weak colony and see sign of robbing the same I tack on the gauze wire entrance block. It has four cuts in it if you will notice; I turn up one and put on the protector. I haven't had in my yard a colony robbed this season. When I see robbers around a colony I put on the protector and they soon disappear. Then I go and examine the colony to see if it is queenless.

Please send Mr. E. M. Storer, of Sausy, Ga. a copy of the Dec. No., also Mr. I. T. Bolton one to Glenmore Ga. I want to try to get them to take THE QUEEN.

I attended the Waycross fair and took the premium on the best colony of bees in hive, best bee hive, best comb and extracted honey and the best observatory nucleus. I would like to at some future time give an article on my experimenting.

A. Duncan's Plan of Keeping Plenty Drones etc.

To have drones as late as I wish I take a fine old queen, put them to finishing a batch of sections, feed heavy until about finished, then stop feed for a day and take out one of their brood combs and hang in its place a frame of drone comb. In a couple of days she will fill it with eggs. This comb is carried to a queenless colony and their brood comb returned. In this way I have drones as late as I wish.

A. DUNCAN & SON,
Homerville, Ga.

By a private letter from Mr. Doolittle we learn that through a fall he recently sustained one or two broken ribs, from which he was suffering intensely. Mr. Doolittle's host of friends will regret to learn of his misfortune, and hope for his speedy recovery.—The American Bee-Keeper.

Why The Queen Lays Unfertilized Eggs Into Drone Cells.

(By L. Stachelhausen.)

In my article, "Dickel's Theory," (Dec. No. of THE QUEEN) I mentioned: If we accept the parthenogenesis we have some difficulty to explain how the queen is induced to fertilize the eggs which she will lay into worker cells, while she does not if the egg is laid into a drone cell. The old school supposes that the queen does so arbitrarily, but this would require an intelligence and reason of the queen which no other animal possesses. This is the reason that some mechanical explanations were given.

Sam Wagner taught that the pressure which the sidewalls of the small worker cells execute on the abdomen of the queen will cause that one or more sperm cells escape from the spermatheca. This explanation is not acceptable, because a queen sometimes will lay eggs into a newly drawn out foundation or comb when the sidewalls of the cells are hardly started and cannot execute any pressure on the abdomen of the queen; nevertheless the eggs are fertilized.

Chas. Dadant thinks that the position of the legs which is different according to the size of the cells will cause the fertilation of the eggs or prevent it. This is in accordance with the following fact: If we give drone combs exclusively to a colony the queen is induced at last to lay fertilized eggs into these drone cells; but before this the bees always build a strong edge on the sidewalls and so form the cells smaller at least on the outer edge. This contraction is removed when the eggs are laid. The same will occur when an egg is laid into a queen cell. I have not observed this myself, but if it is correct, and I have no reason to doubt it, it is a strong proof that the size of the cell-edge has something to do with the fertilation of the eggs. But here arises another difficulty, because at certain times and seasons the queen will not lay any eggs into drone cells, even if they are in the middle of the brood nest. If we accept this mechanical explanation we are forced to suppose an instinct or impulse of the queen which causes at some times the desire for drones, while at other times it does not.

The purpose of this article is to give an explanation. In my article, "Queen, Worker and Drone" (see Oct. No. of THE QUEEN) I have explained how the different parts of a colony are dependent one on the other and this forced us to call the colony in a whole an unit organism. This opinion is called by Gerstung THE ORGANIC CON-

CEPTION. We can compare the queen with the ovary of another organism, while the workers are the nourishing and alimentary organs. The following is a short reproduction of Gerstung's idea. Some similar ideas I have read years ago in "Gleanings," but I do not remember who wrote them. Partially I had the same ideas before I had read anything of Gerstung.

The young bees of a colony produce chyle for larval food instinctively as soon as the spring opens and offer pollen to the bees. At the same time this chyle is fed to the queen and induces the ovaries of the queen to produce eggs which she is forced to lay. By and by the brood nest is enlarged and at the same time the number of young bees. More chyle is produced which causes more eggs, and more eggs cause more chyle. Everything will be in harmony as long as the queen is daily increasing the number of eggs. But the fertility of every queen is limited, partially by the power of her ovary and partially by the number of empty cells, especially in small hives. Now a surplus of chyle is produced which the bees are eager to feed to larvæ; but they cannot find enough customers for them, and this state is driving to a crisis.

At first it causes, by a physiological act, which to explain here would take too much space, that the blood of the nursing bees is enriched and extended. It is this state which Gerstung calls THE EXTENSION OF THE FOOD-JELLY.

A rich and extended blood is the necessity to get the wax-glands of the bees in action. We will at once find wax-scales on the bees and the impulse for building combs is induced. If the bees can build combs the harmony is for some time preserved. But to produce wax, very little albumen is necessary. White fat and sugar are consumed in large quantities, necessarily the blood of the worker bee will get richer in albumen and this causes again, by a physiological act, which I cannot explain here, a chyle richer in albumen which is now fed to the queen. This causes an other impulse in the queen as well as in the worker bees, the desire for drones. We know that the nourishment is of great influence on the impulses of animals.

Eggs are deposited into drone cells and to the drone larvæ is fed this chyle rich on albumen. By the way, this explains why V. Plauta found the food of young drone larvæ richest in albumen. I do not believe that the bees prepare another food-jelly for queens, workers or drones. But this is a question not discussed as yet.

How in further developement the swarming impulse is induced and so on I will explain in another article.

We see that we can give up the old absurd idea that the bees foresee the need of drones, because they will be necessary for fertilization of the young queens, which to produce the bees have not even made preparations. We see that the organic conception explains many things for which we had no explanation at all or such an one which could not be accepted by scientists. The explanation of instincts and impulses, the whole science of biology is comparatively new and much remains to be found in future. How just a certain impulse is induced by a certain state and no other one we cannot explain. It is a physiological act which follows with the same necessity by a given cause as other animals will eat when they feel hunger.

If we accept the explanation of Chas. Dadant in connection with the induced impulse for drone rearing, we may have the most probable solution. Nevertheless I do not know of any anatomic reason why the position of the legs can act in any way on the spermatheca. It is possible that a certain curving of the abdomen causes the fertilation of the egg.

Gerstung thinks that the sex of the egg is dependent on the physiological condition of the blood. Against this opinion is the fact that a queen many times lays some drone eggs and then suddenly worker eggs again.

For this reason he supposes that the composition of the blood has some influence on the sperms in the spermatheca, in so far as the sperm cells will get virulent (that is fit for fertilation) by this influence of a certain composition of the blood, and does not by an other composition.

Here I think Gerstung got a fabulous impression. It seems to be very improbable that the sperms should not be virulent before they enter the spermatheca. Besides this hypothesis cannot explain our question, because we had to suppose that the queen knows when she has virulent sperms or not, that fertilized eggs belong into worker cells and the other ones into drone cells, that a certain egg is fertilized another one is not and I do not know what else.

If we go back to Dickel's theory we will see that his hypothesis, even if it would be acceptable or reasonable, would not help us over our difficulty. We had to suppose the same knowledge to the worker bees which is supposed by the old school now to the queen.

In my next article I will write some more about Gerstung's theory.

Converse, Tex., Dec. 20, '98.

BEE TALK.

Written for THE SOUTHLAND QUEEN.

(By H. H. Hyde.)

The production of section honey is severely condemned by the editor of THE SOUTHLAND QUEEN, Dec. issue, page 25, claiming that too much of it is broken in transit. Now friend A. did you not know that when section honey was shipped in warm weather that no breakage occurs. We (O. P. Hyde & Son) have shipped tons and tons of section honey and never was any reported broken in warm weather. Sometimes, however, as in the case of that Ft. Worth lot (We shipped the honey referred to.) when it was shipped after cold weather set in we have had reports of damage done the honey in transit, but this does not concern the matter in controversy. Mr. A. takes the ground that it is the extreme heat which causes the breakage and makes the production of section honey unprofitable. This is no argument, for clearly heat does not cause the breakage, but cold weather; hence we are to an advantage compared to the people of the north. No! No! Do not condemn the production of section honey. There is a demand for it and we must fill that demand. It is our place as bee-keepers to supply the demand for honey in whatever form the market calls for.

The quality of southern honey has been going the rounds of bee papers lately. The Yankees, as a rule, believe that all honey from the south is not good. This is an unfounded belief. Just as good and just as much honey can be produced in the south as in the north. Of course all honey from the south is not of the first class, neither is all honey from the north of first class quality. Our horsemint and cotton bloom honey I sincerely believe equal to the famous white clover and our mesquite and marigold will compare with basswood. It would be hard to find any honey in the south of as low a grade as buckwheat, at least that is the opinion of the writer. In fact, I defy the world to produce honey better than cotton bloom honey. What has injured the character of honey in the south is that sent out by a few inexperienced farmers. I hope to see the day when southern honey will take its place with northern honey as it deserves.

G. M. Doolittle, page 363 of the Review sounds the trusts in general. I am with you, Bro. D. The trusts are getting worse and worse. There is a trust for everything fostered by the Republicans and shielded by the Dingley Tariff. O

when will the people rise in revolt by their voters and throw off these mighty trusts and compel the rich to pay their part by means of the Income Tax; but stop, I am getting into politics, and politics is no part of a bee journal.

Hutto, Texas.

Friend H.:—We spoke from a money standpoint, and know whereof we speak. We have had section honey melt right down and leak out before we could get it shipped. If railroad companies and express agents would always keep the sections in the shade it would be alright, but a crate of section honey exposed to 20 minutes (more or less) of July sun in this country and everything will be a dripping mass of ruins. We have kept careful accounts, and find that from this extremely warm country there is always enough section honey lost sooner or later, to bring the price down to or below bulk honey, and we are going to quit it, as we can make more money raising bulk honey, as we get more, and we sell ten times more bulk honey. The demand with us is much better for bulk, we get more honey, get pay for all that is lost in transit shipped in cans, when sections go at ownes's risk. We have produced and sold section honey ever since sections came out, and we too used to think as you do, but we have now changed our minds.

We sold during '98, about 100,000 lbs. of bulk comb honey and could have sold as much more if we could have gotten it. If it pays you best to produce section honey, by all means raise it, but we have found out that it pays us better to raise bulk honey. The demand and market for honey is ruled by the way the producer places it on the market, and we have ten times the demand for bulk comb more than for sections. Bulk comb honey, put up in packages in size to suit the consumer, free from ants, dust etc. will soon be the only profitable plan for marketing comb honey in the south is the honest opinion of

THE EDITOR.

An Article on Bees.

Mr. Editor:—

I will comply with an increasing desire to write an article on bees, as I have of late achieved some notoriety as a bee man. I did not take up the trade as a bee-keeper without some misgivings, but after surveying the situation thoroughly I decided to embark in this new field of study. Neither did I wish to become famous as a beeist, but being a child of destiny I merely got into it and that is the only explanation there is to it.

Since I have learnt so much I am bored with innumerable silly questions about bees, such as, Where do bees get their honey? Any fool ought to know that they get it outen corn tassels, grape trees and peach vines. They want to know where bees get their wax. Who can conceive of anything more infinitely ridiculous than this. Old Sibely asked this question, and if he had made the acquisition of ignorance a life study he could not have graduated with

higher honor than he could when he asked that question. Any ten year old boy would have answered that they gather their wax from flowers, because everybody has seen the wax on their legs. It worries me to talk about fools, so I will now proceed to write about questions of more importance. The subject of parthenogenesis is an interesting question and I desire to side with our friend Stachelhausen along this line. A great many people do not know what the word means. For the benefit of the readers of this paper I will give full and free explanation of the word parthenogenesis. This way or that way; to expand or contract; whichever way the emergency of the case requires. To illustrate more fully the true meaning of the word, I will say that according to one writer in THE QUEEN Mr. Aten can eat 6 large watermelons while traveling the short distance of one quarter of a mile. This proves that Mr. Aten's capacity for eating melons exceeds our own at least one half mile, and we would have to be well drawn for the race at that. This will give the reader some accurate idea of the stretching capacity of parthenogenesis. I differ with my friend however in one respect in regard to the queen bee, inasmuch as it has been thoroughly decided and demonstrated beyond a shadow of doubt, by two prominent men in Burleson county that the drones lay the eggs themselves. The meaning of a word, however, has nothing to do with the object for which it was invented. I will now proceed to tell for what purpose the word parthenogenesis was brought into existence. You will please understand that the German who first spoke the word was running a printing-press, and hired his type set by the word and the bigger the word the less it would cost him to have his type set. So he jumped these 4 words together to save money, par-the-no-genesis; Chinese definition of the word is Take no part in the book of Genesis. Well, I will close. I hope THE SOUTHLAND QUEEN will live to wear a golden crown.

EDITOR OF THE SANDGROVE TATTLER.

QUEEN REARING.

Why Everyone Can't Be a queen Breeder.

(By Willie Atchley.)

(Continued from last issue.)

The reason that so many queens are not good where colonies are dequeened and allowed to rear their own cells, is, they are dequeened at the wrong time. Great care must be taken and judgement used when colonies are allowed to build

cells after their queens are taken out. I have reared queens by all the plans known to me, and have secured good queens by all of them, but at certain seasons some of the methods given will not work. In fact, most any of the plans will work when everything is favorable, honey coming in, etc., but the point that I would wish to make now is, how to rear good queens out of season, and when no honey is coming in, and I think I have solved that problem, or at least I have to my own satisfaction. To be successful in getting queens out of season, and during a dearth, it is best to have no strong colonies near the mating yards, and keep the nuclei stimulated with full combs of honey uncapped. Where a breeder has an out yard, or means of getting frames of sealed honey, it is an easy matter to keep the nuclei going alright, and a much better plan than to feed syrup or extracted honey. Always insert the uncapped honey at night, or late in the evening, and be careful about dripping honey about, keep the entrances properly contracted, and no robbing will occur. Five colonies kept strong and well fed, will be sufficient to keep 50 nuclei running with cells and drones. The breeding colonies can be kept away from the mating yard, but frames of drone brood can be placed in some of the strongest nuclei as often as needed to have an abundance of drones at all times. My plan of rearing queens, transfering larva, cocoon and all is the best plan, and the only one that I have any degree of success rearing queens out of season and when there is no honey coming in.

I can feed a strong colony, and make it broodless and queenless and raise just as good queens as raised during a honey flow and swarming time, but it takes great care to do it. It has been said that necessity was the mother of invention, and along this line, I have a plan of taking a small, thin, warm, sharp instrument, and move the bottoms of cells from new combs or foundations. Shave down the cells on both sides of the comb and run around the little larva with the sharp tool, and with a pair of watch-makers' tweezers lift out the bottoms of the cells, larva and all, and place them in my cell cups prepared for them which is as good as moving the cocoons, larva and all, and I believe I can do it faster with the new combs. I can transfer eggs which have been laid on foundations which have been but little drawn, and the bees will accept nearly all of them, and make good queens, but I prefer larva about a day old, or younger will do, as bees do nothing to eggs in the

way of rearing queens till they are hatched into larva, and some time is lost by using eggs. It has been asserted by some that better queens will be reared from eggs than from larva, but such is not my experience.

In my next I will give my plans how I take care of virgin queens, and a safe way to introduce them, when we happen to have virgins crawling all over our hands as soon as the hives are opened. I have been bothered a great deal by being a little late getting to my cell colonies, and the queens all ready to hatch at the same moment, and in fact had been ready to emerge for hours, but the bees had kept them back, and when I disturb the colonies and the bees molested out popped the queens as fast as I could catch them.

(TO BE CONTINUED)

A Few Words from The "Tar Heel Man."

[Continued from page 19, Dec. QUEEN.]

I would not recommend having a second batch of cells built by a swarm, but if satisfactory work is being done in the supers a comb of eggs or young larvæ can be given when the cells are removed, and keep them at it ten more days, or even until a queen begins to lay reared from the second brood given. Then the queen can be saved that is liked best, and the bees united with the parent colony, thus preventing increase, getting a nice batch of cells and the full force of the swarm in storing honey in the sections. I know this idea is not new, and what is? The bees are in better fix for the work as soon as they are hived than ever afterwards.

To show what can be accomplished by perseverance when one is on the right line of thought, and how much difference there is when one is the "father of the thought," we will note the following private letter, published in "Gleanings," from Mr. Doolittle:—

"Scientific Queen-rearing" cost me five of the best years of my life, as that number of years were given up almost wholly to that work, as far as deep study and experimenting and planning were concerned; and ten years of work since along that line, without a single failure, with one SINGLE batch of cells, has proved the soundness of what I dug out. Letters have come to me from all over the world, and are still coming, fully equal to those of the first two or three years, telling of the great success obtained by the plans given in the book. This summer I have excelled anything I ever did before. I prepared just ONE colony for cell-rearing the latter part of May; and this one colony, having a laying queen below all of the time, has raised me a batch of 18 queen-cells, every three days, ever since, up to the tenth of this month, at which time I started the last batch of cups for this year. I find by my tally-sheet that the

average number of cups given each three days was 21, and the average number of queens obtained was 18. So you can see how successful it has been with me during nearly four month in succession. And there are many others who say they do nearly or quite as well. The beauty of the whole thing is, every queen-cell and queen is perfect, and fully equal in every way to those reared during natural swarming, where nature does her level best. No cells were ever moved from this one colony, from the time the cups were given till the ripe cells were taken away.

G. M. DOOLITTLE.

Borodino, N. Y., Sept. 28.

The fall flow was a failure here this time, although there was a profusion of bloom. Consequently only those colonies worked for comb honey are populous enough to winter well, due to the fact that they provided for their future needs during the time of plenty. The others were fed before frost but too late to stimulate brood rearing.

There is usually a check in brood rearing during August, which is the time to feed weak colonies to build them up for the fall flow in this locality. The same holds good with populous colonies short of stores, and usually five pounds of sugar then is worth twenty in the fall.

The following editorials appeared in "The American Bee-Keeper:"—

J. Kerr in Australian Bee Bulletin strongly maintains that bees recognize and distinguish members of their own colony from intruders by sight and not by sense of smell as generally believed.

Sir John Lubbock, in which that eminent student of nature sets forth his futile efforts by various means to ascertain any effect of sound upon bees. He tried a violin, shrill pipe, shouting, tuning forks, dog whistle, etc., yet failed to elicit even a twitch of the delicate antennae in acknowledgement. It is nowhere recorded, however, that Sir John ever tried letting a top-bar down on the legs of a Cyprian worker.

One would judge by their actions that bees distinguish members of other colonies by the sense of smell, sight and sound.

When a robber emits the note peculiar to one on such a mission, the guards appear to recognize the sound and go for her by sight, while if a bold but quiet entrance is attempted the sense of smell is brought to bear.

W. H. PRIDGEN,

Creek, N. C., Nov. 28, '98.

H. L. Raven Asks For a Comment.

Editor of THE SOUTHLAND QUEEN:—

I enclose a clipping from "Tex. Farm & Ranch," of Jan. 7th. I would like to see your comments on the same in "Tex. Farm & Ranch" and also in SOUTHLAND QUEEN, because it is an exaggerated statement. I cannot believe that 70 hives will produce an average of 200 lbs. of honey per hive. I have kept a few bees for a good

many years and have never taken anything like that much even from a few of the best hives. I am a subscriber to THE QUEEN and wish it prosperity. H. L. RAVEN,

Round Rock, Tex., Jan. 10, '99.

Following is the contents of the clipping referred to:—

THE HOME OF THE HONEY BEE.

A. L. BITZ.

A profitable industry in Bee and adjoining counties must be that of bee culture. Your correspondent has visited apiaries and conversed with the proprietors concerning this business, and finally has been led to the conclusion as above stated.

One gentleman said: "Four years ago, after much effort on my part, and an equal amount of failure to maintain my family and self by the cotton industry (and it was much better then than now) I determined to quit the business, and did. I located myself in what I thought to be a favorable place for the bee industry, and started the business with six colonies, four of which were well stored and two that had to be fed through the winter. I now have seventy colonies, most of which are well stored for winter. During the last season the colonies which I brought over yielded me each three new colonies, and I got about two hundred pounds of honey per colony, and during this time had devoted myself to other business which had almost enabled me to maintain my family." We mention this case because it appears to be one full of initiative data—just what the beginner would like to know. By the gentleman's statement we see that he took 14,000 pounds of honey that was reasonably worth five cents a pound, or equal to $700 cash, to say nothing of the increase, which is of greater value than the honey taken, as stated above.

Since obtaining the foregoing data, I have been looking for some small cotton planter that could, with no more capital or other expenditure, make an equally good showing for himself, but my search has been attended with no success.

The peculiar climatic conditions of this section of country are perhaps, not excelled by any other locality, not even by California, this being a dry climate pretty much all the year, with an abundance of bloom lasting about eight months of each year, some of which are of the very best known for their honey producing qualities. The most excellent of which perhaps is the guajio, a bush growing from five to ten feet high and usually a fine bloomer, and is very abundant in many localities. The honey from which is said to be the very

best known, both for flavor and richness. Next of prime importance comes the weesache, the cats claws (una de gato), the mint, each of which are very commonly found in this section of Texas. Then the mesquite and other blooming shrubs and plants are almost innumerable. The various wind mills and tanks furnish an abundance of water for the bee.

One gentleman suggested that one of the continual beauties of the bee business was to be found in the fact that the bee is a free commoner, and is not hedged in by wire fences, and if your neighbor should own 60,000 acres and you only six acres of land, you have a sufficient possession for your business; in fact very many apiaries are established on the lands of some ranchman in a small sub-enclosure, which is just as good in many respects as if you owned the land and will cost but a small amount, if anything, to obtain this privilege.

Just why a thousand apiaries of greater or less magnitude should not be established between the San Antonio and Nueces rivers is one of the things that is not easily to be explained. Yet on the other hand, everything therewith connected goes to prove such enterprise to be very lucrative and, considering the small amount of capital invested the annual financial income must be very large, sufficiently so that any family may be well maintained by the industry. At this time, while it is only in the initiative stage, it should be very lucrative as compared to the cotton industry, which for several years has shown to be an all round failure. No man is heard to speak of his profits accruing from cotton culture.

Bee County, Texas.

Friend Raven:—The clipping you sent, as above, is certainly an exaggeration for the year '98, as nowhere in this part of the country did bees gather an average of 200 pounds of surplus honey per colony. We do not remember now that we have ever known a large apiary in this county to average 200 pounds per colony in a single season, but we have had quite a number of colonies to gather more than that amount in good seasons.

It seems that the nature of the clipping is to make it appear that just anyone can jump right into bee-keeping and make a fortune in a short while regardless of experience. It is noted by us that there are only a scattering few, even in this most favorable latitude that make bee-keeping pay, but on the other hand, there are numbers that make a failure at it. No, my friends, it takes great energy, a ceaseless toiling and a thorough

knowledge of the business to make bee-keeping pay here as well as elsewhere. We do not know the gentleman whose name appears at the head of the clipping, but we will thank him if he will tell us the name of that party that made 200 pounds of honey per colony, in Bee County during 1898 as an average for 70 colonies, for we believe it is a mistake. We believe that a person with energy and perseverance, coupled with a thorough knowledge of bee-keeping and one that is a close observer, can make bee-keeping pay in this country (southwest Texas), but if one expects to take right hold of bee-keeping and lacks the above necessary qualifications, failure will be the result, and our advice would be, keep out of bee-keeping if you want an easy job and a lazy chair to sit in, or soon you will be asking some one for bread. In conclusion we will say that we are led to believe that the writer of the clipping did not understand his informant as we note he says: "By the gentleman's statement we see that he took 14,000 pounds of honey." We do not see it that way. You will notice that the bee-keeper said that he started the business, four years ago, with 6 colonies, and those that he brought through gave him during the last season each three swarms, and he took 200 pounds per colony, which likely meant spring count for whatever he had, which by no means is unreasonable for even last year in a good locality for a few colonies; and at the present time the man has 70 colonies well provided with stores &c. Now this does not prove at all that he obtained 14,000 pounds of honey, or we fail to see it that way. ED.

Dry Weather in California.

Editor of THE SOUTHLAND QUEEN:—

This is the second letter I have written you to-day, or will be when it is finished. In reading the No. for Nov. received to-day from you I notice what Mr. H. J. Boree, of Acton, Cal. says as to our present dry east winds. I have lived most of my life in California. Observations during a period of nearly 40 years will justify placing the point on the other end of his "indications." Early heavy rains here have in the main, resulted in dry winters. We have indeed had quite a dry spell here. It will be two years, early in next March since we have had a rain to wet the ground one foot in depth, yet sweet clover flourishes on this dry land. It is not an annual here either, as they all tell us in the cold north. I know of roots here five or six years old that grow every year six feet or more in height

and bloom for more than four months, in fact are blooming now. It is a fine bee plant, but horses or cattle will starve rather than eat it. I could not resist a smile when I read your reply to Mr. J. P. Cranfill. We would indeed be pleased to see the family group. We think, however, that you have our friend in a corner. He will likely be compelled to renew his subscription to get a peep at the pictures. H. M. JAMESON,

Corona, Cal., Nov. 28, 1898.

Friend J.:—We will let friend Cranfill out of the corner by sending him a free copy containing group if his subscription expires before it appears, as what we meant to construe, was, we are very much crowded now for space to have the good matter appear and then we have to hold over a great deal of good, interesting articles, and they may get old before we can use them, and by next summer, when the bee-keepers all get busy, we may catch a chance to give a group of our family, but to take space for it now we do not think it right. We have to leave out our present to our readers this month, "Robert Hall." ED.

Wants Information.

Mr. Editor:—

Please find inclosed one dollar on subscription for SOUTHLAND QUEEN. I would like to ask if anyone in connection with THE QUEEN know anything of the bee business, prices or production of honey in Costa Rica, Central America, or anyone that can give me any information in regard to same and oblige J. H. HAGLER.

Aransas Pass, Texas, Jan. 8, '99.

Will some of our subscribers in Jamaica, British Honduras or Cuba give Mr. Hagler the desired information? ED.

New York Quotations.

Demand for honey has been good during the past few weeks, especially for the fancy grades. Receipts have been extremely heavy with us, though at present we have our stock worked down very well. We quote:

Comb:	
Fancy White,	12 to 13 cts.
Fair White,	10 to 11 cts.
Buckwheat:	
Amber,	9 to 10 cts.
Mixed,	7½ to 9 cts.

Extracted honey finds ready sale. We quote:—

White Clover,	6 1-2 to 7 1-2 cts.
Buckwheat,	6 to 7 cts.
Amber,	6 to 7 cts.
Florida White,	6 3-4 to 7 1-4 cts.
Florida Light Amber,	6 1-4 to 6 3-4 cts.

Other grades of Southern Honey from 50 to 70 cts. per gallon, according to the quality.

Beeswax is in good demand at 26 1-2 cts. to 27 1-2 cts. When shipping, mark all packages, gross tare and net weight.

FRANCIS H. LEGGETT & Co.,
West Broadway, Franklin & Varick St.
Dec. 27, '98. New York.

OUR SCHOOL.

Mrs. JENNIE ATCHLEY,
INSTRUCTOR

I am thinking of embarking in the bee business for a livelihood, but I wish to be very careful before I do anything. Is there a good market here for honey, both comb and extracted, and what does it bring a pound? What is the average price of a hive of Italian bees, pure stock? Let me know all that is necessary to be known. Is it possible for a person to make a living for a family with 100 colonies of bees, after learning all about the business? How much can be made from 100 colonies in one year? I am a farmer and wish to make a change, and will be thankful for any information you will impart to me.

A. McDONALD,
San Antonio, Texas, Jan. 7, 1899.

Friend Mc.:—We have a good market for honey in this state, but comb honey, as a rule, is more ready sale than extracted. Extracted honey brings 4 to 5 cents in a wholesale way, and bulk comb 5½ to 6½ cents. Comb in 1 lb. sections, about 7 cents. A hive of pure Italian bees brings about $5.00 in the spring time. We have mailed you our catalogue which will give you some information, much more than can be given in one issue of this paper. Yes, it is possible for a person to make a living with 100 colonies of bees. Good years, each good colony in the spring ought to yield $5.00 worth of honey, if properly managed. In off years I will say half that much. If you will be careful as you say and learn to manage bees properly you can make a living with them.

What hive is the best for the most profit in this country?

MRS. C. B. GATLING,
San Augustine, Texas, Jan. 6, 1899.

For your locality I would advise 8 framed hives, as you do not have, as a rule, long continued honey flows, and you will get about the same amount of honey from 8 framed hives at your place as you would to use 10 frames, and then 8 framed hives are some cheaper. The hive question has given rise to more discussion than almost any other subject connected with the business, and we can do well with either 8 or 10 frames, but for long continued honey flows I prefer 10 frames, short honey flows 8 frames. I use both.

I wish to change my bees from box hives to framed ones this coming spring and introduce Italian queens. Please tell me if it is better to use full sheets of foundation in the frames or will starters do. Also is the foundation made to fit the frames? How many pounds of foundation will it take to a hive?

W. Y. EDWARDS,
Butler, Texas, Jan. 13, '99.

It is better to use full sheets of foundation in frames, but it is rather expensive and starters will be sufficient to insure straight combs. It will do pretty well to use half sheets. It takes about 1⅓ pounds of medium foundation to fill 8 frames, and about 1⅔ pounds for 10 frames. The foundation we carry in stock is cut right for the Langstoth size frames which is the standard frame in size.

I have secured a location out in the country two miles or nearly so from other bees, where I expect to place my queen rearing apiary for the purpose of raising queens to stock my other yard with. Will two full colonies with good stock Italian queens be sufficient to raise drones and get queens properly mated?

T. E. CANNEDY,
Greenville, Texas, Dec. 24, '98.

Yes, two full colonies will be sufficient to produce both drones and cells for 20 or 25 nuclei. Raise cells in both full colonies, and drones can be reared in both colonies also. You will be likely to get the majority of your queens mated purely two miles from other bees, and may be all of them.

Please give me some information concerning Bee county as a place for conducting the bee business. Also if there is plenty of room there yet for apiaries, and if the country is adapted to raising fruit and vegetables for the northern market. Are the winters there very moist? W. B. KRIMMINGER,
Hannon, Barton Co., Mo., Dec. 20, 1898.

Bee county is a desirable place for conducting the bee business, that is, in queen rearing, one year with another, but as for honey, we have short crops sometimes. Yes, there is plenty of room here yet for apiaries. Bee county is adapted to raising fruits and vegetables, but irrigation is necessary in some of the dryest years. We have plenty of vegetables. Yes, the gardeners raise vegetables for northern markets, that is such as water melons, peas, beans and cabbage. Cabbage is almost ready for market now. No, the winters are not so moist as as our early springs.

The goods you sent me arrived quite safely and I am much pleased with them. I have the supers painted and frames put together. I do not quite understand how to fasten the foundation into the frames. How soon ought I to put on the supers.

WILLIAM F. JAMES, M. D.
San Antonio, Tex.

There are several ways of fastening foundation in frames. Some put it in by pressing it against the frame with a warm knife, and others with the "daisy foundation rollers" which we keep for sale. The best plan is to tack a narrow strip of wood on the frame, fit your foundation in the center of frame and put a strip of wood on the foundation and tack it well; it will not pull off when you hive a large swarm on it. This is what we call hemming it on the frames. Put your supers on when the bees begin to gather honey. You can tell when prosperity begins by looking in the hives, as when they begin to speck their combs white, it shows prosperity.

THE SOUTHLAND QUEEN.

PUBLISHED MONTHLY.

E. J. ATCHLEY, - - Editor and Business M'g'r.

...ASSISTED BY...

WILLIE, CHARLIE AND AMANDA ATCHLEY.

MRS. JENNIE ATCHLEY, Editress and Manager of School for Beginners.

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One year, in advance, - - $1.00
Three months, trial trip, - .25
Three back numbers, all different, .10
Postage Extra, (24 cents) on all foreign subscriptions except Canada and Mexico.

Advertising Rates.

One inch, one time, - - $ 1.00
" " " year, - - 10.00

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Address all communications to
THE JENNIE ATCHLEY COMPANY,
Beeville, Bee Co., Texas.

Entered at the Post Office at Beeville, Texas, for transmission through the mails at second class rates.

BEEVILLE, TEXAS, JAN., 1899.

Bees are wintering fine so far this season, and if we have a favorable spring the bees in these parts will go through alright with very little honey.

We shipped our last queens for '98 Dec. 26th and our first for '99 on Jan. 3rd and almost every day since. This is one place that queens can be had any day in the year.

We note that some factories have advanced the prices on hives and frames to correspond with the rise on lumber, but we have decided to let our '98 prices remain for the present at least.

We note that wild currants and cleome will be in bloom in 10 days if this sun shine continues and then the bees will have a picnic. Ten days from now will be about the first of February.

You will notice in convention column that the Texas State Bee-keepers' Association meets at the factory of Graham & Son, Greenville, Texas the first Wednesday and Thursday in April, '99. Grub and lodging free. Everybody that has bees or expects to have any are invited as well as those that are in sympathy with the bee-keepers.

We have just heard from Willie and he reports that the country around Denison is flooded with rain, snow and ice and he is home sick, but business compels him to remain in north Texas for several weeks

yet. He has been out since Oct. 14th, selling honey. Charles is visiting W. R. Graham & Son, of Greenville, Texas, and says they are well fixed for bee hive work.

Lookout for Gerstung's theory, by Stachelhausen, Feb. and March. We have the copy now in, and it is very interesting indeed.

Corn planting has begun among our farmers Jan. 16, grass is getting green and flowers will soon give off their fragrance in all directions.

Willie has his Pearsall apiary moved near the R. R. at Derby, Frio Co., Texas, and it is in charge of L. L. Lorscheid, lately from California.

We are a few days late this month on account of all our force taking holidays, but we are going to try to be on time the rest of the year. Our day of publication is the 15th of each month.

When you contemplate making us a visit, always drop us a card a few days before you start telling which train you will arrive on, and some of us will meet you at the train. We live 2½ miles north of Beeville.

We are importing Italian, Carniolan, Cyprian and Holyland queens this spring to keep up our stock to the standard, but when we find a queen that is extra good in every particular we hang on to her as long as she lives.

Our bees which we fed for winter stores are wintering just as well as those not fed, and we believe they are going to build up faster this spring than those we did not feed. We fed four apiaries, and two we did not feed.

We learn that southern California has had some rain but will need five times as much as has fallen to insure a honey crop this year. It will be a great misfortune to our brother bee-keepers of California if another dry season should prevail there.

Notice the time and place of the three Texas bee meetings this year in this issue. We want to try to attend all of them, and hope to meet all the bee-keepers of Texas at these three meetings. Remember there are no hotel bills to pay at Texas Bee-meetings. It has been 20 years now since bee meetings began in Texas, and board and lodgings have been furnished at all bee meetings to date, and likely always will be.

There is at least a score of bee-keepers that had to feed their bees in this county to save them, that we know of and likely many more that we do not know of. With a favorable spring no more feeding will be needed in this county to speak of this spring.

NOTICE OF TIME AND PLACE OF MEETING OF THE THREE TEXAS BEE-KEEPERS' ASSOCIATIONS.

Texas State:—April 5 & 6, '99, at the factory of W. R. Graham & Son, Greenville, Texas. This will be the 21st annual session. J. N. Hunter, Leonard, Tex., Secretary.

Central Texas:—July 20 & 21, '99, at the home of E. R. Jones, Milano, Texas. 5th annual meeting. H. H. Hyde, Hutto, Texas, Secretary.

South Texas:—August 16 & 17, '99, at the home of the Atchleys, Beeville, Texas, which will be the 5th annual meeting. E. J. Atchley, Beeville, Texas, Secretary.

NOW IS THE TIME TO ORDER.

Don't wait until your bees are

Hanging on a Limb,

to order your hives and supplies, but order them now, and be ready for them when . . . .

They do Swarm.

REMEMBER

That we carry a full line of Bee-Keepers' Supplies, and everything in the Bee-Keeper's line. Such as Hives, Frames, Extractors, Smokers of all kinds, Foundation, and anything you may want, in the Bee line. Bees and Queens. Catalogue free. Read the following testimonial—such we are receiving daily:

FRIENDS:—The hives to hand in good condition. I am more than pleased; the lumber is good, and the workmanship is all right too, and a few (one or two) pieces of each kind allowed for splitting. Please accept my thanks for the way you filled my order.

Yours Truly, MERRILL W. SMITH, Cuero, Texas.

The Jennie Atchley Company,

Beeville, Texas.