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Beeville, Texas: The Jennie Atchley Company, December 1900

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— THE —

SOUTHLAND QUEEN.

— PUBLISHED BY —

THE JENNIE ATCHLEY COMPANY,

BEEVILLE, TEXAS, : : : : DECEMBER, 1900.

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A Testimonial.

Evansville, Ind., Sept. 27th, 1900.
The Jennie Atchley Co.,
Beeville, Bee Co., Tex.

Dear Friends:—It gives me great pleasure to forward you this unsolicited testimonial regarding the merits of Atchley queens. The (3) three dozen queens purchased of you have made an excellent record for themselves. Not an Atchley queen among the twenty colonies lost during the severe drouth in July. I have bought queens from many breeders, and although the present crop is exceedingly short, the tiers of supers show where the Atchley queens are and speak volumes for your method of queen-rearing. I find the progeny to be very gentle, strong-winged, uniformly marked, long-lived, of large size and last but not least the best honey-gatherers I ever had. I shall want 100 more next season.

Yours Fraternally,
J. C. WALLENMEYER.

Our Clubbing List.

We will club with THE SOUTHLAND QUEEN the following papers, which will be a saving to the subscriber in case both or all the papers named are wanted.

Gleanings and The Southland Queen \$1.75. Bee-Keepers' Review and The Southland Queen \$1.75. The Progressive Bee-Keeper and The Southland Queen \$1.35. Cash must accompany each order at the above prices. Address your orders to

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THE SOUTHLAND QUEEN.

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

Vol. VI. BEEVILLE, TEXAS, DECEMBER, 1900.

No. 8.

An Overland Journey in South-West Texas.

BY JOHN W. PHARR.

(CONCLUDED.)

I borrowed Tommie's cap, took a trowel in my hand and flew in to help ease in the new boiler. I worked until Saturday night, went to church Sunday morning, and in the evening, in company with Mr. Willie and Charlie Atchley, father Jones and three or four young ladies, I took a ride out six miles north of their home to one of their bee-ranches. We did not carry any smoker, but we must see the bees, so, as we were walking through the yard, Willie would lift a lid here and there. The first I knew father Jones was going through the tall weeds, slapping first one side of his head and then the other; and I might not have been so unconcerned had I not provided myself with a veil. We found father Jones when we got back to the wagon, and he was not bunged up very much.

The next day E. J. Atchley took father Jones and I out on the Nueces to a ranch where he had about four hundred colonies

of bees in one yard. He had several other yards out there, but this was the only one we had time to visit, as the weather was very hot and we had to return that evening, and we were then in Live Oak County, about twenty miles west of Mr. Atchley's home. We got back that night between nine and ten o'clock.

We started for home next evening and camped in Goliad County that night. We crossed the San-Antonio River, at Charco, next morning. Here we missed our road and went by the way of Runge, in Karnes County. We stopped with a man by the name of Ryan. Leaving there we reached Yorktown by noon, where we found a fine artesian well. We passed through town and on to the river next morning and came to Cuero, which is the county seat of DeWitt County. We hurried on to Yoakum, where we stopped for a day and a half with my wife's cousins. We enjoyed ourselves well while there, but had begun to get homesick, so we left in the rain. Roads were very bad, but we trudged on until we came to the Navidad Creek, where we found a bridge gone, or at least

the approach on the opposite side. They had dug out a crossing, but it was so boggy that we were afraid to undertake it. While pondering as to what we should do a German drove up and right into the creek, only stopping long enough to let his wife out with her budgets, and, after seeing that the man was safe, she hit the bridge with bundles in hand, but after she had walked over the turn of the bridge she saw, to her dismay, that seven spans of the bridge were gone. The question came up as to how she was to get to her husband. I proposed that I and another man put a rope around her waist and let her down to the ground. The men below procured a long piece of timber and placed one end up on the bridge for her to walk down it. She began to slowly walk down and was all right as long as she could reach the stringer, but when she turned that loose down she went toward the ground. We held on to the rope and kept her from being injured. You would have thought we were trying to steal some fellow's girl. I went back to the camp and told father Jones that we could cross the creek. We started at once and got through all right, but before we got home I had to stop at an appointment I had made. I was gone from home seven weeks and one day.

I want to say that I started on that journey for the purpose of finding a place where I could have health and raise honey, and I think I found it in Bee County. We made arrangements, while there, to move to that county and we are still working to that end. We expect to spend Christmas there at any rate.

We saw all kinds of country on our trip—some good and some not so good. Our judgement is that all the country west of the Guadalupe River is healthy and most of the country this side of that river is unhealthy, especially east of the Colorado River.

I hope when you read this that I will be trying the reality of Bee County. I will write up my experience with bees some time in the near future.

Reply to J. R. Scott.

BY FRANK L. ATEN.

I see in THE QUEEN, of October, that Mr. A. G. Anderson has a shower of bricks ready for me when my war with Mr. H. H. Hyde is over. Well, Mr. Anderson, come on with your bricks, as the war with Mr. Hyde is over. He has swallowed the elephant and gone to the Baylor University to procure more knowledge. Say, Mr.

Anderson, did you ever see a black bee in the cotton bloom?

I will now proceed to answer Mr. J. R. Scott, in October QUEEN. Now, Mr. Scott, are you sure that those bees that gathered that cotton honey were pure black bees? If you noticed, in one of my articles I said that a good hybrid was as good as a pure Italian for honey, but not as gentle. You said in your article that you "helped your neighbor rob his bees." Now, look here, I never rob my bees. I always wait until they have a surplus; then I go and take that, but always leaving 40 to 50 lbs. per colony. When I hear a man say *rob* it makes me think he has not been in the bee-business very long. What do you mean by being rich in honey? I guess you mean a wagon load of honey. Your cotton down there sure yields lots of honey if one bee can fill up on the middle stem of one leaf. Are you sure that was all nectar? When a man keeps black bees he keeps them at a loss; the same as keeping razor-back hogs. Now give us some figures on how much those black bees had.

Round Rock, Texas, Nov. 10, 1900.

If you want to learn something about the bee-business subscribe for THE SOUTHLAND QUEEN. See offers elsewhere in this issue.

Letter From Mr. Frank Benton.

Washington, D. C., Dec. 1st, 1899.
Mrs. Jennie Atchley,
Beeville, Texas.

Dear Madam: We frequently have inquiries here as to where queens of various foreign races of bees can be obtained. Some of these requests are in regard to Cyprians. Knowing that the importations of 1880-86 have been permitted to become crossed with other races, and not being in possession of evidence that any reliable stock of this race has since been imported to this country, I have been obliged merely to state this to correspondents. I notice however that you advertise bees of this race. While we do not wish to pursue any course that might harm anyone's trade, and are ready at all times to assist in the spread of superior stock, the Department cannot, of course, without official inspection or tests, recommend in official letters the stock of anyone who is unable to furnish indisputable evidence, through letters from reputable breeders or by sending cages with postmarks, etc., that imported or homebred stock of undoubted purity has been obtained to breed from. In the case of Cyprians, for the reasons indicated above, this would have to be imported stock.

I know you have good imported Carniolans, as I sent you three queens which came to me *direct from Carniola*, Austria, and one of these had been tested for some months in my own apiary, having been during the whole time under my personal care, so that I am sure she is the identical queen imported and introduced to the colony from which she was taken and sent to you. The other two were not introduced after their importation, nor taken into any apiary, nor permitted to fly—except behind a closed window—before they reached your hands.

You mention having received other Carniolans direct from Carniola. I would be glad to know from whose stock, as there is much difference in the bees from various parts of the Province. I would like also to see one or all of the cages in which these came, if you have no use for them—or, if you care to keep them I will return them to you.

I have given to a number of breeders in Carniola pointers on mailing queens on long journeys, and to breeders in this country who have requested it I have sent the names of a number of Carniolan breeders, deeming it, myself, highly desirable that we should receive, here in the United States, numerous shipments of these very

gentle bees; and I am now curious to know with what success any of these shippers are meeting when preparing shipments in which they are not directly aided by me. The cages, with candy and all, just as received, would be the best object-lesson for me, but the cages alone—especially if they have not been scraped or cleaned inside,—would enable me to judge fairly well. I inclose postage.

My time has been so fully occupied of late with official work and my bees, not only by day but often till midnight or even sometimes until one or two o'clock, that for the time at least I could not think of undertaking the preparation of the article or other work you suggested. You may wonder if I could do anything with bees so late at night. Yes, certainly, with Carniolans. It seems not to be generally known—although I first called attention to it some time ago—that with most Carniolans one can work right along until pitch dark, then get a lamp or lantern and continue as long as desirable, or open other colonies at will. Except in rare instances pure Carniolans behave quite as well at dusk or after dark as during broad daylight; a bee-veil is never needed when handling them, and a very moderate use of

smoke can always be relied upon to keep them wholly under control.

I shall be away from home Dec. 12th to 23d, as I am to speak on bee-keeping topics during that time at various Farmers' Institutes in Western and Central New York.

Very truly yours,

FRANK BENTON.

We did not have the cages in which the imported Cyprian queens came, as we had mailed queens to other foreign countries in them, but we sent Mr. Benton the letter from the party we purchased the queens from. We will now give the following article, also from Mr. Benton.

ED.

Cyprian and "Holy Land" Bees in America.

BY FRANK BENTON.

An editorial on page 155 of THE SOUTHLAND QUEEN for October, 1900, contains the following sentence: "*We have the only original Holy-Land and Cyprian stock, imported direct from their native land, in this country, up to this year, and all the pure stock in the country came from us.*" This sentence I regard as loose-jointed, illy punctuated, and yet, though capable of misinterpretation if taken literally, as conveying unmistakably in its present form an impression which is far from the realtruth. I wish therefore to sub-

mit a few facts, and then ask the reader to judge whether the editors were justified in making the above statement or not.

Early in the year 1880 Mr. D. A. Jones of Canada, and myself went to the Island of Cyprus together, established there a large queen-rearing apiary, and, during that year, landed in America the very first Cyprian queen ever brought from that Island to this country. Furthermore, for a period of seven years all of the imported Cyprian queens brought to America came from this apiary established by Mr. Jones and myself in Cyprus. Excepting as regards one small lot (taken to England) the same thing is true of all of those which reached any European country from Cyprus during this period—those sent to Great Britain, France, Germany, Norway, Sweden, Italy, Austria, etc. Although Mr. Jones returned to America about three months after our arrival in Cyprus, I remained in the Orient during that season and the two following years, and we were still associated in the work, my whole time being devoted to the rearing and shipping of Cyprian, Syrian, and Palestine queens. During the four subsequent years the undertaking was conducted by me alone, with headquarters in Munich, Germany, whence annual journeys

for pure original queens were made to my queen-rearing apiaries located in Cyprus and Syria, distant merely 2,500 miles from the home-apiary. Probably no other bee-keeper has ever had to travel eleven days by rail and steamship to reach his nearest out-apiary!

The first of the so-called "Holy Land" bees (properly two distinct races: Syrian and Palestine bees) were also brought to this country by us in 1880, and for a number of years we supplied all that reached America and Europe.

From the numerous shipments of these three races made from our apiaries in the Orient during the seven years referred to, thousands of queens were reared in this country, and many apiaries were stocked with Cyprian and other eastern varieties of bees.

Wishing to possess in this country an apiary of Cyprians of undoubted purity I sent provisioned cages to Cyprus early this year and have secured several fine lots of queens bred in Cyprus this season. At the present time I have a good sized apiary stocked wholly with Cyprians—the largest pure Cyprian apiary, I believe, in this country or, in fact, anywhere outside of the Island of Cyprus itself. Every colony has at its head an imported Cyprian queen

or the daughter of an imported Cyprian queen. Every one of the sixteen imported queens now in this apiary came direct from Cyprus in cages of my own invention, provisioned and sent out by me, and all of the daughters of imported Cyprian queens heading the rest of the colonies were bred by myself. Quite a number of Cyprian queens imported by myself, as well as homebred Cyprian queens of my own raising, have been sent from here to various parts of the Union, so that I unhesitatingly say that there are numerous apiaries in the United States containing pure Cyprian stock that no member of the Atchley family ever saw.

With these facts before him I leave the fair-minded reader to judge whether those who now own this stock, as well as myself, have received justice in the editorial paragraph quoted above from THE SOUTHLAND QUEEN, and what basis there is, if any, for the claims made in it.

Before concluding I wish to state for the information of the more recent readers of our bee-journals a few additional facts concerning this subject, which doubtless many of them have not had an opportunity of learning, namely: that it was I, who, twenty-five years ago, through articles

and translations from German, French and Italian bee-journals first called general attention in this country to the oriental races of bees and thereby made possible the undertaking in the East—the establishing of queen-rearing apiaries in Cyprus, Syria, and Palestine. And all who now rear and export queens from the East were for a time either under my tutorship in bee culture or derived their start and information in the beginning from pupils of mine. Thus the present opportunity of obtaining queens of the valuable races native to the Orient is one of the results of this work of years ago—the planting of the American system and American methods in apiculture in those distant lands.

There may perhaps be some who, being such prejudiced partisans of one race or another in which they are financially interested, do not count the work which I did in connection with Eastean races a service of any value. Nevertheless, believing I can estimate the views of such individuals at their proper worth, I am far from ready to disavow that work. But after years of experience in the native land of each of the well-known races, and while possessing at the present time three apiaries, one of which is composed entirely of Carniolans,

one of Italians, and one of Cyprians, I am ready to say as did Chancellor Edward Cori, of Bohemia, more than twenty-five years ago: "THE RACE OF THE ISLAND OF CYPRUS IS THE NOBLEST AND MOST VALUABLE OF ALL BEES WHICH UP TO THIS TIME HAVE BECOME PUBLICLY KNOWN."

"The Cyprus Apiary,"

Washington, D. C., Nov. 9, 1900.

Friend Benton:—We have read your article carefully, and it seems hard for us to decipher just what you are driving at. We are more than willing that you should have all the honor for introducing Cyprian bees to our American shores, and we would not for one moment think of taking from you one single bit of prestige that is justly yours. Inasmuch as you lost interest, or, for the lack of faith in the Cyprian bees, you allowed them to retrograde, or run down, and almost pass out of existence in this country, we think you should allow us a little praise for keeping this valuable race of bees alive and finally bringing them to the front again. We do not see why you should so sharply criticise our statement in the paragraph you call attention to, as we said nothing more nor less than you yourself stated in your letter, of December, 1899, given above, where you say that there are no pure Cyprian bees, of the Jones-Benton strains of years ago, now in this country, so it seems that we had a perfect right to say as much. We procured our first Jones-Benton Cyprian queen in 1884, and have never been without Cyprian bees since, though our stock at one time was so mixed that we turned about for new Cyprian pure blood, but could not find it in the United States.

In the year 1894 we procured an importation of Cyprian queens direct from the Island of Cyprus, sending one of that same lot to a friend in California. We then began stocking up on pure Cyprian bees and sold thousands of Cyprians. In 1899 we again found that we needed more new Cyprian blood, and ordered and received another importation of Cyprians, and to-day have the largest pure Cyprian apiary in America, so far as we know, consisting of about two hundred colonies of all PURE AND UNADULTERATED CYPRIANS. Yes, they are so pure and uniformly marked that the bees from the entire apiary look as though they were the progeny of one queen. Mr. Benton, had you lost sight of persons in Cyprus to whom you could look for help in getting Cyprian bees, or why did you wish to see the cages or a letter from the parties from whom we received our queens? Any way, we now see that you have imported Cyprian bees and are trying to push them to the front, regardless of your statement that you did not desire to injure the business of any one, but simply wished undoubted proof, so that you could refer inquirers to parties rearing Cyprian bees. We now reckon that you meant yourself to be the person you would not injure. Well, let this be as it may, you have Cyprian bees and we have Cyprian bees, so let us join hands and keep this most valuable race of bees pure and be public benefactors. Your article sounds more like the tone of a free advertisement for your Cyprus apiary of 1900 than an article, but we are quite willing to have it appear, that we may let the sun shine in upon this matter in such a manner that bee-keepers may not be in the dark. As to there being such a great difference between the Palestines and the Syrians, in your estimation, we beg to say that you are a way off on that line, as there is no

distinction worthy of note between the two races, or no more noticeable difference than there is between the progeny of two imported Italian queens, as there is quite a difference in Italian bees. We desire to give you a big vote of thanks and honor for bringing the Cyprians to America, and we trust that you will give us a little one for keeping the name and stock up to the present time, for we are SURE that if we had not borne them up over the head of the opposition of this entire country the Cyprian bees would be little known to-day, and would have been buried in the grave of the forgotten. ED.

Commercial Queen Rearing in All of Its Details.

BY W. H. PRIDGEN.

(The Prize Article--Bee-Keepers' Review.)

Very few queen breeders now allow the bees to construct their own queen-cells. The cells are dipped, and fastened in some way to a stick and then supplied with just hatched larvæ. If only a few cell-cups are needed they may be dipped by using a single dipping-stick, dipping a single cell at a time; but this is too slow work where there are many cells to be dipped. The dipping-stick should be not larger than five-sixteenths of an inch in diameter. The tapering part should be five-sixteenths of an inch long; reduced rapidly the first one-eighth of an inch, and then gradually reduced to the end. It should slip into a worker

cell one-eighth of an inch before filling the mouth of the cell, and form a sink in the wax cup that will bear sufficient pressure to make the cocoon fit snugly without touching the bottom. The accompanying illustration shows my first plan for dipping a large number of cups at one time, and attaching them to slats by means of melted wax; but the time has arrived when cell-cups will be on the market, and we need a bar to which they can be attached without melted wax. One, a half inch square, to fit between the end bars of a brood-frame, with eighteen five-sixteenths of an inch holes bored nearly through, and five-eighths of an inch from center to center, furnishes just such a bar.

Only one round nail should be used at each end when fastening it in the frame, so that the holes can be turned out for the cups to be inserted and the larvæ transferred, with the frame lying on its side. The bars should be immersed in hot wax before put in use, and if the larvæ only is transferred the cups should first be slightly pressed into the holes with a peg that fits the bottom; but if the cocoons be transferred with the larvæ, it is only necessary to set them over the holes, and the slight pressure necessary to make the transfer will also tighten the cups.

The bar should be put across the center of the frame, and the space above it, except a bee space immediately above it, be filled with a thin board nailed in. There will be no necessity of ever taking the bar out of the frame; as, if provided with wire loops, the nursery (see page 152) can be slipped over the cells in less time than it takes to count them, and the queens removed as they emerge; or the cells can be detached and used in the usual way, by simply running a knife between them down to the bar, and prying them off.

To dip cell-cups that are smooth inside, the first dip must be full-depth, and the others varied according to the temperature of the room and wax. Usually the second dip should only be half way up, and then the third one will finish it, unless the wax is too hot, and should be nearly full depth.

The use of the new cell bar will simplify the dipping of cups wonderfully; as any number of the forming sticks can be made fast in a board, in rows of suitable distance to admit of conveniently removing the cups, or the sticks can be made fast in the bars, as teeth in a rake, instead of loose as shown on page 147, and a number of these sets can be fitted into a frame and all dipped at once, by having

blocks of varying thicknesses or some other arrangement, to be adjusted while the wax is cooling, after making a dip, for the frame or board to come down on, to change the depths of the different dips. It is not necessary to make the base of the cups heavy, as is the case when they are to be stuck on slats with wax, and the sticks need not be varied from a perpendicular position, but simply give a little jerk to dislodge the drops as soon as they form on the points, to prevent having long necks to the cups.

The latest machine dips them by *turning a crank*, and the pins have two motions. They go around, like the spokes in a wheel, and they whirl, or slowly revolve, as they go around, which keeps the wax spread evenly around until it sets, which prevents the long points that are so bothersome when dipped by hand. The wax must be the right temperature and the dipping done by a steady, slow movement. If moved too fast the wax will be forced up too high on the pins, and make the cups with a long side and a short one. Although they are turning while in the wax, they will not turn entirely around while at the deepest point.

The pins are arranged on the circumference of a wheel but not

put on entirely around the wheel, and after all are dipped, and the point reached where no pins touch the wax, all is suddenly raised sufficiently for them to miss the wax and another revolution given without stopping the wheel, followed by a pause for cups to cool, and then repeated until the cups are sufficiently heavy. Then the wheel is carried over to the water trough and the cups removed. If the weather is cool, the water should be kept at a temperature of about 100° Fahr., to make the cups slip off easily.

The machine automatically varies the depth of dip by means of a plate with a thick side and thin one, that is moved around one notch every time the point is reached where no pegs touch the wax. Over this is arranged a piece of hoop iron that moves up and down, on which the thumb screws rest that are used for adjusting the machine to the quantity of wax, and for lowering it as the wax is used up.

As queen breeders generally will not consider such a machine practical for making cups for their own use, as more simple arrangements can be used for securing satisfactory cups in a wholesale way, I will not go into all of the particulars, but will add for the benefit of those who want to make

them for sale, that the pins should have sharp shoulders the right distance from the points to give the cups the desired depth, which will trim each cup to a uniform depth, and remove the feather edge so liable to be broken off in handling. It should be a square cut in, and the cup made on the head or larger portion. The cells made on pointed sticks are just right for use when the transfer is made by using the cocoon and there is nothing to do when they are placed over the holes but make the transfer and they will be fastened in the bar at the same time. If larvæ only are to be transferred, a peg the same size and shape of the transfer stick, except the end should be round and smooth instead of concave, can be used for pressing the cups in the bar, which will stretch them and make them the right shape inside. No attempt should ever be made to fasten them in unless they are soft enough to mash up without cracking.

Inasmuch as the bees more lavishly supply larval food to royal larvæ than to worker for the first three days, and all agree that the resulting queens are no worse for it, while the experience of many verifies the fact that they are better, I prefer a plan of transferring whereby newly hatched

larvæ can be used. This is done by supplying the breeder with combs so old that the bottoms of the cells have lost their hexagonal shape, and are thick and dark. A piece of such comb may be shaved down with a keen-edged, slightly heated knife, so as to cut it smooth, within $\frac{1}{8}$ of an inch of the bottom of the cells; and, by bending it back and forth, the cocoons will drop from it, unless it has been sufficiently exposed to moisture to mould.

It will be found that all do not work alike; some seem to be glued in, while others almost fall out, with all degrees between, but usually they can be transferred by taking them up on the transfer-stick, herewith shown, which is sufficiently rounding at the points to slip into them without bruising them; although they may be stretched a little thereby, which should be the case. The end has a funnel shaped cavity in it that fits over an egg, or small larva, and takes the cocoon up, fitting like a gun cap on the tube, which by a slight pressure and little twist, is transferred to the cup.

It is more satisfactory when the comb is old enough so that the outside of the cocoon is black and glossy, and any adhering thin tissues that are liable to come above the edge of it in the cup

can be rubbed from it while it is on the stick. Whenever only a transparent tissue is taken up it is useless to insert it into the cup, as it has not the stability to preserve its form while the transfer is being made. Whenever they loosen up by simply bending the comb back and forth there is nothing to do but insert the transfer-stick and take them up; but, with other pieces of comb, it may be necessary to slightly work the stick back and forth as though it is to be shoved or pulled out sidewise before it will adhere. After one has been stretched too much to fit the stick it cannot be taken up. Slightly waxing the end of the stick may help in obstinate cases.

I prefer using larvæ too small to be seen, that are surrounded by clear or slightly milky food; but those larger than the head of a brass pin can be transferred.

When only a small wet spot can be seen in the bottom of the cell the larva will be accepted all right by queenless bees; and one can rely upon being on the right side as to age, as well as certain of the fact that it has been amply fed up to the time of the transfer; especially so if the comb be given to bees anxious for larvæ to feed a few hours before.

The same comb will usually

supply larvæ for three or four days if kept in the breeder's hive as long; and by returning the combs to the breeder after the brood is sealed, there will nearly always be one from which the bees are hatching solidly, which will be filled with eggs just as fast as the bees in the breeder's hive feel the need of brood to feed. In this way only one set of combs need be cut.

Some report better success when transferring larvæ only if no royal jelly be first put into the cups, as the bees begin to feed them as soon as they are transferred. It certainly should be floating in the milky food before it is transferred; and at times when it is sticking to the bottoms of the cells with only enough around it to keep it living, good queens need not be expected if such be used. Then it is that the comb from which it is to be used should be given to bees without brood at least twenty-four hours in advance.

The majority will be more successful in having cups accepted, and attain better results, if they first be given to bees deprived of both queen and all unsealed brood from six to twelve hours previously.

Nursing begins the instant they are given, if the bees be long enough queenless to receive them,

which is of vital importance, as the larvæ once neglected are slow in development and result in dwarfed queens.

In preparing bees to start cells, it hastens matters wonderfully if they be shaken from the combs, whether it be from the combs of one hive on to those of another, or right into the same hive.

When they are thus disturbed they begin to search for the queen immediately, realizing, I suppose, that she is liable to an accident under such treatment, and they act very much like a swarm when the queen is missed.

If shaken from the combs of a normal colony on to combs minus brood, from three to six hours is ample time and sometimes the cups have to be given sooner to quiet them.

At the time the greatest distress is shown is when they will accept the greatest number, and the chances for the best results lessen as they reconcile themselves to their condition.

If one is making a business of queen rearing he should keep a colony at work as cell starters. Fill a body with combs of brood and place it over the colony selected, with an excluder between. Twelve days later place this body on a bottom-board, minus the most of the board, with wire-cloth tacked

on as a ventilator; stop the entrance so that no bees can escape; shake the bees from the combs and examine them for cells, removing any that are found.

Substitute a comb one-fourth full of water, for one in the hive, or pour a little water into one, as they will consume quite a bit when thus shut up, and remove as many more as there are batches of cells wanted, to make places between other combs to receive them.

The bees will cluster in the spaces thus formed, and the cups can be inserted before many bees escape, which they are anxious to do.

Regardless of the kind of hive used, there should be a cloth over the frames before putting on the top, so that it can be gently rolled back and the bees smoked, until the spaces are reached, to avoid their escape.

The greatest number of cups I have ever given was thirty-six, and have had as many accepted.

Usually I prepare the bees about 9:00 o'clock, a. m., give them the cups at 1:00 to 3:00 o'clock, p. m., and wait until the next morning to remove them.

Mr. W. S. Pender of Australia, allows queenless bees to work on one batch two or three hours, and then gives another, and so on, but,

as I know they will accept as many as two batches all right, late in the evening they and adhering bees can be given to cell builders, and the balance set back over the excluder, ready for the same operation the next day, or whenever desired.

At this date (April 4) I am unable to experiment and ascertain how short a time the allowing of the cups with the cell starters will suffice, but, of course, Mr. Pender knows.

When this stage is reached another body should be filled with combs of brood and placed over the excluder, and the one just used for the cell starters put on it when it is returned. Then, when the top one is set off to prepare the bees for accepting cups, some can be shaken from two or three combs of the one immediately below it which will be sufficient to start the excitement.

In ten or twelve more days, all of the bees will have emerged from the top set of combs, and all the brood in the second set given will have been sealed, so that the first set can be disposed of, another set with brood prepared, and the second set come into use in having cups accepted. At these intervals the giving of brood and removing of combs can be kept up during the season, and the bees worked

as described daily, or nearly so. Every time a new set is given those previously given should be examined for cells, and the cells removed.

The brood given keeps up a strong force, although some bees are removed each day with the cups to the cell builders. When no honey is being stored the colony should be daily fed a sufficient quantity of syrup to fill the combs as the brood hatches out.

The main point to keep in view is, that whether bees are confined, or made broodless and queenless on their stand with liberty to fly, they will accept cups in a few hours after the queen and all unsealed brood are taken from them.

In preparing a hive to have cells built above an excluder, with a laying queen below, the excluder should be nailed to the top body, and have a bee-space between that and the frames above and below. If the hive is wide enough to take ten frames and a division board, a tight fitting board can be tacked in the center, to the excluder, and form two apartments, holding five combs each, thereby doubling the capacity of the colony for cell building, without ever taxing it to feed more than the usual number at any one time, by giving a batch of accepted cups in the center of one apart-

ment, between two combs of either sealed or unsealed brood, and as soon as they are sealed, say five days later, place another in the other. This gets it into working order, and one batch can be removed and another given every five days.

Whenever cells are built by queenless bees, if nuclei are to be formed, a sufficient number of combs of brood and the adhering bees should be placed under them as soon as they are sealed, to furnish at least one comb for each cell. Just before the time of hatching, the cells should have a nursery slipped over them, and then the nuclei can be formed and queens given as fast as they hatch; or, say twice a day, as all will not hatch at once. No doubt it is better to form the nuclei late in the evening, so that the bees will become accustomed to their changed condition before they can fly.

Another lot of combs, bees and cells can at once be placed on the same stand to catch the returning bees, and worked in a like manner, to be again and again repeated if necessary, but, of course, in the latter case, care should be exercised in selecting all sealed and hatching brood, as the combs will be used within two days for forming nuclei.

When queenless bees are not

used as cell builders a queen can be removed from a colony and other bodies piled on provided in a like manner a few days before nuclei are to be formed, and by allowing the queens to hatch out in a nursery hereinbefore stated, all is ready to form nuclei, without having unsealed brood in the combs to starve as is often the case when drawn from normal colonies; besides, bees thus treated will remain in the nuclei better than those taken from a colony with a queen, even if cells be given, instead of queens.

After getting the bees in shape, to be ready for forming nuclei, they should be fed all the syrup they will take every evening, until the divisions are made, except during a flow.

After ascertaining how to have virgins or cells accepted, that is, to bring about the conditions necessary under varying circumstances, it is not only a waste of time, but often proves to be a loss, to open a nucleus from the time a virgin is two days old until the time for her to be laying. Virgins are hard to find, and the bees often act as though they were queenless while the virgin queens may be present; and, worst of all, often kill them if no honey is being stored, if disturbed.

If virgins are given and not ac-

cepted they can often be found near the entrance next morning. A stroll in the evening among those containing queens of mating age will often save time, as there will be considerable distress manifested where a queen has taken her wedding tour and failed to return, which is sometimes kept up until the next morning, but usually by that time all is quiet. Such cases should be noted, and cells or queens given the *next day*.

The tin divisions in the nursery are $1\frac{1}{4} \times \frac{5}{8}$ inches, and are slightly let into saw kerfs at the bottom, and are $\frac{5}{8}$ of an inch apart, thus forming apartments about $1\frac{1}{2}$ inches deep, and $\frac{5}{8}$ square. The pegs have holes in them for holding the candy, and should be dipped in melted wax before being used. If one has them, cartridge shells can be used instead.

To remove the queens one should be provided with a number of cages, made by rolling up small pieces of wire cloth into tubes three or four inches long, with one end pressed together or closed, while corks or bits of comb make nice stoppers for the other. If the queens are too young to fly a number of pegs can be withdrawn all along, and the queens allowed to crawl into the cages as they come out, without ever allowing two to clinch, as it almost invariably

means death to one. When this is being done the nursery should be lying on its side, and the queens can be distributed by simply allowing them to crawl from the cages down between the combs, or in at the entrance, and give a puff or two of smoke behind them.

If they are to be kept in a nursery very long, for any purpose, they should be transferred to one minus cells, as the space is small and they are liable to get wedged up between the nursery and cells, and perish in attempting to find a way of escape.

In removing those old enough to fly only one peg should be removed at a time, and the cage should be placed right over the hole. The operation can be hastened by inverting the nursery.

In slipping the nursery over the cells (which is held in place by drawing the wire loops already on the bars over the ends), the tin will cut its way unless an unusual amount of wax has been used in joining them together, as is sometimes the case when the bees are anxious to build comb; and when that is the case they should be separated with a hot, thin knife.

If the cells instead of queens are to be given to nuclei, the nearer the time of hatching the better, and, as they seldom hatch on the orthodox 10th day, if larvæ of the

best age are used, it is quite a convenience to attach the nursery and feel easy until they do begin to hatch.

If the division be made when the bees are flying freely all can be shaken from the comb or combs of unsealed brood, and the returning bees will be sufficient to at once protect it.

As soon as virgin queens reach the combs they begin a search for honey, and bees seldom attack a queen while in the act of securing nourishment. No attempt should be made to introduce a virgin by simply releasing her in the hive after she has become very active, whether it be those held in the cells by the bees, as in cases of second swarms, or that have been in a nursery, unless it be to the bees surrounding them.

During a honey flow the feeble, downy-looking misses can be given the same day the laying queen is removed, with a considerable degree of safety. I have thought that it is safer to give them at once, than any time afterwards, before the bees fully realize and reconcile themselves to their queenless condition. If given to colonies with feeble, old queens they will often be accepted and commence laying with the old queen in the hive, as is the case with supersedures.

When I have a surplus I often release them in colonies having old queens and allow the bees to take their choice between the old and the young.

Virgins at the age of two or three days or older can be shipped from the nursery, if escorts from the same hive be used.

Another consideration in the use of so simple and convenient a nursery, is the saving of time with nuclei. A virgin can be given as soon or sooner than a cell, regardless of the conditions, and the time between the giving and the hatching of the cells is saved, besides, fine looking cells often fail to hatch, and it is not uncommon for others equally fine to furnish queens deformed, and that should be discarded instead of consuming valuable time in a nucleus.

While I prefer allowing the bees to have access to the cells until within a day or two of hatching, so as to add to or take wax from them as they see fit, still, if the proper temperature be maintained, and, as they can be inserted without rough handling, or changing their positions, it can be done any time after all are well sealed; and thereby reduce the number of days of queenlessness when built by queenless bees, or allow the giving of a fresh batch oftener to those over an excluder.

In multiplying nuclei the reason for leaving the queen and unsealed brood on the old stand is that the field force and enough comparatively young bees return to it to feed the larvæ and keep the queen laying, leaving the others in a better condition to receive a young queen, which will have a field force by the time she begins to lay, and bees hold more tenaciously to the hive they have for some time occupied, and will sulk when the field bees quit coming to it, instead of deserting the brood as they often do when given a new hive and location without their queen.

If the queen be carried to the new location she will be comparatively idle until the bees begin field work, whereas, at the old stand she is kept busy.

Creek, N. C., April 14, 1900.

My Experiences.

BY T. P. ROBINSON.

(CONCLUDED.)

The excellent morning of my bee-keeping experience, which came as told in my last chapter, seemed to grow brighter and more brilliant as time rolled on. The sun of my success seemed to mount higher over the blissful horizon of my bee-keeping experience. The winter had passed and the spring-time had come to stay and brighter grow. It is useless here to mention the ever blissful smile that sauntered and played over my face because of my successful work.

The winter of '96-'97 came on with plenty of rain, flowers and vegetation to make the bees happy and put on their working clothes early the following spring. Comb-building commenced early and the bees began to expand in every way peculiar to their habits, and ere long began to tell their tale by pouring forth large, fine swarms in abundance. My enthusiasm and delight can be better imagined than told. I had by this time perfectly familiarized myself with the bee from the book language of our forefathers and saw that by practice everything they advised would work fairly well if rightly performed.

I made honey this year ('97) until I was tired of robbing bees, and, as to swarms, I must say that they just fairly kept the orchard trees brown, settling on them. I never made a single failure, this year, in anything I went at, in the bee-yard.

I will now cut this chapter short, and bring "My Experiences," part 1, to a close.

I have promised the editor of THE QUEEN a continuance of "My Experiences," part 2, or "Katie Bowers's Schooling," which will begin some time near the first of 1901.

I now extend my greeting for a happy New Year to THE QUEEN and all its readers.

May rich rewards and choice blessings remain in store for THE SOUTHLAND QUEEN.

THE SOUTHLAND QUEEN.

PUBLISHED MONTHLY.

E. J. ATCHLEY, - - Editor and Business M'gr.

..ASSISTED BY..

WILLIE, CHARLIE AND AMANDA ATCHLEY.

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

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Send money by registered mail, P. O. order, express money order or by bank draft. Do not send private check under any circumstances. One and two cent stamps will be accepted for amounts under one dollar—must be in good order. Our international money order office is Beeville, Texas, and all remittances from foreign countries must be made through that office.

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, DECEMBER, 1900.

We learn that the Doolittle family will spend the winter in Arkansas and return to their home in the spring. Mr. Doolittle owns a fruit farm in Sebastian Co., Ark.

W. H. Laws will visit his old home, at Lavaca, Arkansas, during Christmas holidays, as he says he is anxious to see his father and mother, as he has never left them so long before.

We are to-day, Dec. 15th, mailing 38 queens to Cuba, and yet have several orders to fill before the first of January. Up to this time we have had but little cool weather, and queens can yet mate and do well.

Notice the full-page ad of the A. I. Root Co., on last outside cover page. These people need no introduction, and are nice folks to deal with. We have had dealings with the Roots since 1876, and have always found them straight and fair.

On Monday, December 10th, a small party of bee-keepers, consisting of W. H. Laws, Sam Ray, E. J. Atchley, Willie Atchley, Nick Atchley, Oscar Marshall and Tom Coleman, (colored) the cook, started west with three wagon-loads of bees, our destination being about twenty miles west of Beeville. These were Mr. W. H. Laws's bees. We started early, and, on arriving at the spot where the bees were to be placed, unloaded and found the 100 colonies to be O. K. We then

took a southwestward course for Dinero, about fifteen miles from there. We struck camp on Lapara Creek, about two miles west of the city of Lapara, by the side of a hill, in a beautiful grassy spot among the friendly sand-burs. We soon had supper, after which our ears were filled with the music of the wild coyotes. After we had listened to the wolves' music as long as it was musical, we chatted about bees and other subjects till we began to get sleepy, when all retired for a night's rest. All went well till the rattle of rain on our beds bade us arise, take up our beds and walk, but as we did not know where to walk to for shelter, we covered up, head and ears, and just let it rain, while we slept. After the rain had ceased, another pest, in the form of a mule with a bell on, came along. This abominable mule began eating the hay from under us and ringing his bell as he nipped the hay. We all wished that mule clear on the other side of Jordan, and, as we would try to catch him to fill his bell with hay to stop his racket, he would banteringly gallop around, as much as to say, "catch me if you can," but as soon as we would get still here he would come, ting-a-ling, ting-a-ling, which meant no more sleep for that night. When daylight came, Sam Ray concluded to get even with that son of an ass and began pelting him with a mule-whip, but we do not think he reaped

much reward, as Mr. mule soon ran away. Breakfast over, we proceeded to Dinero, where we began husking and shelling 100 bushels of corn. When the boys were well started on the work of shelling, Mr. W. H. Laws and the writer, E. J. A., boarded a buggy and fled to the mountains in search of bees, deer and other wild animals. On our way, two nice deer crossed our path a short distance ahead of us. Bro. Laws can shoot rabbits and quail with as much rapidity as any one we know of, but he would not even raise his gun to shoot at a deer, but why we could not say. Up the canyon, about eight miles from Dinero, we stopped, at noon, and dined with Mrs. Brannon, a bee-keeper and stock-raiser. We tied our team to a post just inside of another pasture, while we went to dinner. Mrs. Brannon's boys had just came in off a hunt, and their game consisted of fourteen raccoons, two wild hogs and one javeline. We enjoyed a good dinner, bought Mrs. Brannon's 24 colonies of bees and started back to camp, when lo and behold, a Mexican had gone by and locked both gates of the pasture, and there we were, inside, between two locked gates, and about the best thing I can tell you is that we are not there yet!

We desire to call attention to our new advertisements this month, and we expect several more for January. You will remember that our rule is not to carry advertise-

ments when parties are found to be irresponsible, so don't be afraid to deal with our advertisers.

We wish to give our usual Christmas and New Year's greetings to our friends, readers and customers generally, and we wish one and all a prosperous 1901. If our kind readers will *all* pay up during early spring, we promise some grand improvements on THE QUEEN for 1901. Love and kindest regards to you all.

We are transferring bees, and the way we now manage it is very easy. We take four frames of sealed honey from the supers of hives that have a surplus, place them in a brood-chamber and finish with empty combs. We then take all the combs and honey from the old box-hive and run the bees into the brood-chamber on the honey and empty combs and they are nicely housed and provisioned for winter. We can transfer about one hundred colonies per day in this way.

We are in the dark again to-day about who are the owners of the different shipments of wax just received. Three shipments, all about the same size, came in, and there was no name on either package to indicate who owns or

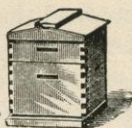
shipped the wax. We simply have letters from all the parties, stating that they send wax, and we do not know which package belongs to which party. Now, friend, if *you* were the only one sending us wax it would be quite different, but more than one hundred people send us wax, so you can imagine our case when no name is with the wax.

BIRDS OF A FEATHER FLOCK TOGETHER.

We are glad to welcome W. H. Laws among us. He brought his bees in a car, together with his stock, and all arrived safe. He now has his bees located where he can raise queens without the trouble of watching drones, as his yards are from five to fifteen miles apart and pure mating is almost sure. Mr. W. A. Jones, of Bedford, Ark., has arrived also, and we expect E. R. Jones, of Milano, Texas, and John W. Pharr, of Chriesman, Texas, this month. All are queen-breeders and birds of one feather. We will have a queen-breeders' union right at home, and there is no accounting for what we will all do; but one thing is sure, and that is that those who want queens can get them—big, little, old and young, and of any color desired. Hurrah for Beeville, Bee County, queens!

OUR SCHOOL.

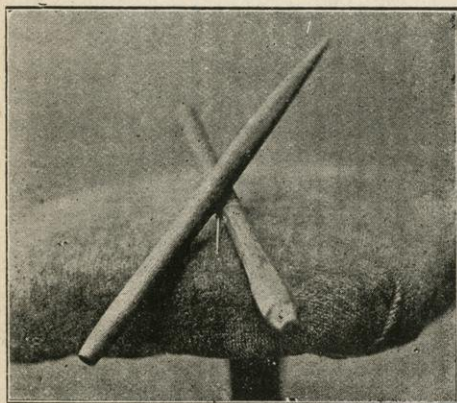
Mrs. JENNIE ATCHLEY,
INSTRUCTOR.



Please tell me the best way to transfer larvæ into cell-cups for rearing queens. My eyes are not as good as they used to be, and I want to know the easiest way.

T. J. ADAMS, Kiber, Tex., Aug. 21, 1900.

Friend A.:—For your benefit, and for others that are desirous of knowing how to use the cell-grafting tools, we submit our full and complete instructions, also the picture, which we think will make it all plain. We sometimes use tweezers in grafting cell-cups, but they are not shown in the picture.



DIRECTIONS FOR USING THE ABOVE GRAFTING OUTFIT.

Prepare melted beeswax in a cup or other vessel and keep it over a low-burning lamp to keep

it melted or the right temperature. Dip the cell stick first in water, then into the melted wax, up to the mark the first dip, then a little more shallow, till you make about six or seven dips. This will give you a good solid base to the cell-cups and make them easy to handle. When you have made the last dip, take hold of the cell-cup with the left hand and twirl the stick with the other and the cup will slip off. When you have cups sufficient for your wants, go to your breeder's hive and cut out a dark or old piece of comb containing larvæ that has just hatched. Now, with a razor or other sharp tool, shave down the cells to within an eighth of an inch of the base of cells, or as close to the larva as you can without touching it. Then take the little cocoon-stick, which is sharp at one end and has an inset at the other, loosen up with the sharp end and then insert the other end into the cocoon and twirl it and the cocoon will slip out. Now place the cocoon, larva and all into your prepared cell-cups, down in the bottom in the little cavity made to receive it and

you have the baby, cradle and all removed without even waking the baby up. Now place these cell-cups, about 10 to 15 in number, according to the strength of your

colony, in a circle just under the edge of the rim of honey in a frame and place the frame of grafted cell-cups into your broodless and queenless colony and you are most sure of a fine lot of cells if honey is coming in or the colony is being fed. Make the cell-building colony queenless and broodless about 24 hours before you put in your grafted cell-cups. The tweezers are for help to remove the cocoons when the stick does not loosen them up enough. You can use the bottoms of new combs or foundations by cutting around the larva with a sharp knife and removing the bottom of cells into the cell-cups if you have no old combs with larvæ in them. Shave down both sides of the new combs if you use them in place of the cocoons, and we believe this latter an improvement over the moving of cocoons. Always give a little more space between the frames where the cells are being built. This is the best plan for rearing queens in large quantities that we ever tried, and gives good, strong and healthy queens—as good as natural swarming queens or any other kind.

If you have any good way to stop robbing please give me a pointer. For the benefit of any who may ask you about express charges I will say that the company charged me \$2.00 on the nucleus you sent me, which I think was pretty steep, and

if I should do any business with you in the spring I will try to make arrangements with you to have charges prepaid, which I think could be done cheaper than by paying at this end. T. L. JORDAN,

Oakland, Cal., Oct. 11, 1900.

Friend J.:—The best way to stop robbing is to keep all hives closed up just as close as it will do, not to smother them, and keep hives, entrances and robbers well sprinkled with water; and the robbing will be stopped as quickly as by any plan we ever used. We may write a full chapter on robbing soon.

How shall I fix my bees for winter in South Texas? A READER.

There is nothing to do that is worthy of note except to provide dry hives, or hives with good covers, plenty of honey, say 15 to 20 lbs., and have only good-sized colonies, and there will be nothing more to do for safe wintering in South Texas, unless, by chance, a cover should get knocked off. It will be well to look at them and examine each colony about Feb. 15th, to see if they have plenty of stores to carry them through the spring, as bees sometimes starve out in South Texas right in sight of a honey-flow, if a few days' rainy weather at that time should stop the bees from working.

Please inform me if it will do to kill queens in full colonies in the month of June and introduce others. In your opinion of the two races, which is the best, the 3 or 5-band strain of Italians?

JOHN C. SMITH, Lockhart, Texas.

Friend Smith:—It will be all right to dequeen working colonies in June and introduce new queens; in fact, it can be done then with less danger of loss, as the bees will likely be gathering honey. We prefer the 3-band Italians as the best all round bees. We like both strains, but our experience teaches us that the 5-bands, or goldens, do not, as a rule, gather as much honey as the 3-bands, and we think it is because the queens are not so prolific, but the workers they do have are good honey-gatherers.

Will you be kind enough to tell me how long it is best to keep a queen without changing her? I used to let the bees change their own queens, but sometimes they don't do well, which is the reason I ask you for the information.

EDWARD CANTARINI,
Bonsall, Cal., Oct. 14, 1900.

Friend C.:—We keep all queens just as long as they keep their hives well supplied with a working force—some one month, some a year, some three years, etc. We seldom allow bees to supersede their own queens, but do it for them, if we come round in time. The average time to keep queens

will be about two years, but this must depend upon the work of your queens and the judgement of your apiarist.

Will you kindly give me some information about raising horsemint? Does it grow well in South Texas? Will it grow best on heavy black or light sandy soil? How is it easiest started—from seed or plants? If from seed, where can they be obtained, at what price, and when is the best time to plant them? If from plants, note same points. When is the proper time to take honey from bees? If horsemint is not easily grown on my land (heavy black) what else would you recommend for me to grow? I have ten hives of bees. I raise strawberries, peaches, plums, pears and grapes. I need something that will afford honey from now on through the fall. J. H. PECK,

Manvel, Texas, June 30, 1900.

Friend Peck:—Horsemint usually raises itself in South Texas. • It springs from seed and grows well on both sandy and black lands. You can procure seed from any farmer in South, Middle or North Texas, if they will take the time to gather them. The stalks have all died down here and the seed wasted for this year. It is best to plant seed in fall or winter. They will come up in the spring, but have a better chance in autumn. The best time to take honey is just after each honey-flow or just before flows close. Buckwheat will grow well in your soil.

"The Cyprus Apiary."

Established at Larnaca, Island of Cyprus, in 1880. Out-Apiary established near Washington, D. C., U. S. A., in 1900, with stock imported direct from Cyprus. Imported and home-bred queens. If interested, address for circular:

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We will give as a premium for every new subscriber with \$1.00 this year, one nice untested Italian queen, and to all old ones that will pay up and one year in advance. Jennie Atchley Co.

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Dept. 59, Jamestown, N. Y.

✻ W. H. LAWS ✻

Has removed his apiary and entire queen-rearing outfit to Beeville, Texas, where he will be better prepared to supply his customers with more and better queens than ever before.

The Laws' Strain of Golden Italians are still in the lead. Breeding Queens, each, \$2.50. I am also breeding the leather-colored, from imported mothers. Price, tested queens, either strain, \$1.00 each, or 6 for \$5.00. Untested, 75 cts. each, or 6 for \$4.00. Address,

W. H. Laws,
Beeville, Texas.

6:8 Please mention "The Queen."

Honey Producers.

Francis H. Leggett & Co.,

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FRANKLIN and VARICK
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7:1 Please mention "The Queen."

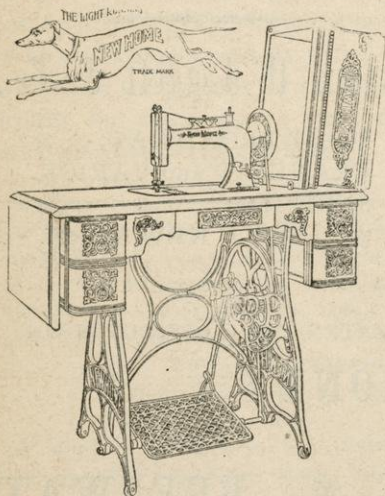
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 Dallas, Texas. San Francisco, Cal. Atlanta, Ga.

FOR SALE BY

The Jennie Atchley Co.

Forced To Rise.

We have been forced to rise 10 per ct. on hives and frames for 1900. Lumber has advanced and the rise we have made is very slight considering the advance on lumber. All articles that we have advanced on will be mentioned in THE QUEEN and 1900 catalogue. Bees and queens remain as for 1899.

1900 Prices of Queens and bees.

CHEAP QUEENS AND COMPETITION.

We are often asked why we do not sell queens as cheap as Mr. so-and-so. To this we will say that we do not enter into competition with any one in the queen business. We think we have been in this business long enough to learn what is a "live and let live" price, and we think you will agree with us when you note our prices given below. We must place a guarantee upon all queens sent out, and we try to send nothing but good ones, and after all dead queens are replaced, cost of food, cage and mailing comes off there is only a small portion left for our work, and if we should sell queens at less than cost we fear we would not hold out another 22 years in the business. We try to send you value received when you order anything of us. Untested queens, either from imported Italian stock, Carniolan, Cyprian, Holyland, or our best 5 band strains, February, March, April and May, 1 dollar each, 5 dollars for 6 or 9 dollars per dozen. June to Nov. first, 75 cents each, \$4.25 for 6 or 8 dollars per dozen. Tested queens, three-band, \$1.50 each, of other races, \$2.00 each, at all seasons of the year. Fine breeders, from previous season's rearing, 5 dollars each. We will select you a queen from any race or strain for 50 cents extra to prices given. Bees by the pound, 1 dollar; 10 or more pounds, 90 cents for each pound, and untested queens to go with them, 75 cents each. If you wish a large lot of bees and queens write for wholesale prices.

The Jennie Atchley Co.,
Beeville, Texas.

Job Printing for Bee-Keepers.

Did you know that we are well fixed to do printing for bee-keepers? White wove envelopes, good and strong, also neat, printed \$2.00 for 500, or \$3.50 for 1000. Letter heads, same price. You pay express or postage, or they can be sent along with other goods. We get out cards, circulars and catalogues as cheap as the cheapest. Prices quoted on application, as we would have to know the size before we could make a true estimate. Give us some of your printing.

The Jennie Atchley Co.,
Beeville, Texas.

* FOR SALE. *

Patent No. 522,872—An invention in garden hoes, dated July 10, 1894. Will sell State Rights. The hoe is made from a strip of thin steel about an inch wide, turned up at right angles at each end. The socket, or shank, branches in two bows, which are bolted to the ends of the blade. The hoe is intended for work among drilled garden crops, or where hand work is done on a level surface. It works easily, skimming the surface soil, and will work close to small plants without covering them or tearing them out. When the blades are worn out a new one can be used at a small expense. Warranted to do double the work of any other hand hoe with the same labor.

J. H. ANDRE,
200 Moore St., Waverly, N. Y.

6-6

Please mention "The Queen."

Bees and Queens. **NOTICE** Bee-keepers' Supplies.

We are rearing bees and queens by the best known methods.

We have either Golden Italians, 3-band Italians, or Holy Lands, bred in three separate yards. Our stock is choice home bred, from the best breeding queens procurable. Give us a trial order.

WE WANT the address of every bee-keeper for our queen circular, which not only gives prices and describes why our strains are superior, but is also full of valuable information for bee-keepers desiring success.

Prices of either race:—

UNTESTED, June, July, Aug. and Sept., 75 cts. each, or six for \$4.25; all other months \$1.00 each, or six for \$5.00. TESTED, June, July, Aug. and Sept., \$1.25 each, or six for \$6.75; all other months, \$1.50 each, or six for \$8.00.

Select Tested and Breeding Queens a specialty. Discount for quantities.

For every \$10.00 sent us for queens we will mail, next August or September, one select tested queen, or for every \$25.00 a fine breeder.

O. P. Hyde & Son,
Hutto, Texas.

6-8

The Modern Farmer and Busy Bee.

Emerson Taylor Abbott, Editor.

A LIVE UP TO DATE
FARM JOURNAL,

With a
General Farm Department, Dairy, Horticulture, Live-stock, Poultry, Bees, Veterinary, Home and General News.

Edited by one who has had practical experience in every department of farm work.

To introduce the paper to new readers, it will be sent, for a short time, to new subscribers, one year for 25c.

Sample Copies Free.

Best Advertising Medium in the Central West. Address

MODERN FARMER,
St. Joseph, Mo.

if

Please mention THE QUEEN.

VIRGINIA HOMES.

You learn all about Virginia lands, soil, water, climate, resources, products, fruits, berries, mode of cultivation, prices, etc., by reading the VIRGINIA FARMER. Send 10c. for three months' subscription

to **Farmer Co., Emporia, Va.**

if Please mention THE QUEEN.

WANTED---HONEY AND WAX.

If you have any bulk comb honey to offer write us and give prices wanted. We also buy extracted honey. When you have wax to sell you may ship it to us without notice and we will pay the market price of it or the ruling price here. Put your name on box or sack and tell us how much you send.

The Jennie Atchley Co.,
Beeville, Texas.

LARGE Apicultural Establishment

(Established in 1860)

for the Rearing and Export of queen bees

PURE SELECTED ITALIAN KIND

Cav. Prof. PIETRO PILATI,

Via Mazzini No. 70,

Bologna, (Italy.)

PRICE LIST

	March April May	June July August	September October November
1 tested Queen	Doll. 1.75	Doll. 1.25	Doll. 1.00
6 " Queens	" 9.25	" 7.00	" 5.75
12 " "	" 18.00	" 14.00	" 10.00

The ordination must be united with the payment which shall be effected by means of post-money-orders.

The addresses and the rail-way stations are desired exact, and in a clear hand writing.

If by chance a queen-bee dies upon the journey, it must be returned accompanied with a Post-Certificate and another queen-bee will be sent immediately in its stead.

We have been pleased with all the queens purchased from Prof. Pilati. ED

if Please mention THE SOUTHLAND QUEEN in answering this advertisement.



OUR PRIDE



That we always furnish the best of goods, fill orders promptly and give satisfaction.

Send for our free 40-page catalogue.

It tells you about bee-fixtures, bees, etc. Also gives some instructions to beginners.

We have A. I. Root Co's. supplies and sell them at their factory prices. We buy in car lots, so can save you freight charges and time by ordering nearer home.

We make a specialty of choice stock Italian queens, bees and one, two and three-frame nuclei. Write for Prices.

 Bees-Wax Wanted. 

JNO. NEBEL & SON,
High Hill, Mo.

tf Please mention "The Queen."

ONE DIME! 10 CENTS!

THE FREESIA is one of the very best bulbs for window culture, and the grace and elegance of it's pure white flowers have made it very popular with florists for cut flowers. Everyone can grow it as it's culture is very simple and easy. Five bulbs are enough for a large pot and will give an abundance of waxen blossoms of exquisite fragrance. For ten cents we will send postpaid to any address the

Western Florist & Fruit Grower, a semi-monthly magazine, 20 pages, three months on trial.

10 Fine Freesia Bulbs and our **Fall Catalogue** of Fruit and Ornamental Trees, Shrubs, Roses, Plants, Bulbs, etc.

Address **L. H. COBB & CO.,**
Lock Box C 57. Perry, Okla.



tf Please mention The Queen.

✱ PREMIUM! ✱

We wish to rehearse the fact that we will give a nice untested queen bee, and guarantee her safe arrival at your postoffice, as a premium to all old subscribers who will pay up and one year in advance; also to all new subscribers. You can have the queens sent when it best suits you.

The Jennie Atchley Co.,
Beeville, Texas.

J. M. Jenkins,
Wetumpka, Ala.

—ESTABLISHED—
 1884 

Steam Bee-Hive Factory, _____
Italian Bees, Full line of bee-keepers' supplies.
Send for sixty page catalogue—Free.

APIARIAN SUPPLIES!

LATEST IMPROVED HIVES, SECTIONS, COMB FOUNDATION, SHIPPING CASES, EXTRACTORS, BEES, QUEENS, and everything in BEE KEEPERS' SUPPLIES. **FIRST-CLASS GOODS.**

We are anxious to mail you our 28 page catalogue free, and surprise you at our very low prices before they go up.

Send 25 cts. for the AMATEUR BEE-KEEPER, a 70 page book, and "a gem for beginners."

J. W. ROUSE & COMPANY,

6-8

MEXICO, MO.

Please mention "The Queen."

Queens. ❁ QUEENS! ❁ QUEENS!!

FRIENDS:—I am now better prepared to supply you with queens and bees than ever before, as I have more bees now, and double my regular number of queen rearing yards. I can supply you with queens and bees of almost any kind, the different kinds of which I breed in separate yards, from six to twenty miles apart. Three banded Italians, five banded goldens, Holylands, Cyprians, Albinos and Carniolans. Untested queens of either race from now until further notice, 75 cts. each, \$4.25 for six, or \$8 00 per dozen. Tested queens, \$1.50 each. Fine breeders, from previous season's rearing, \$5.00 each.

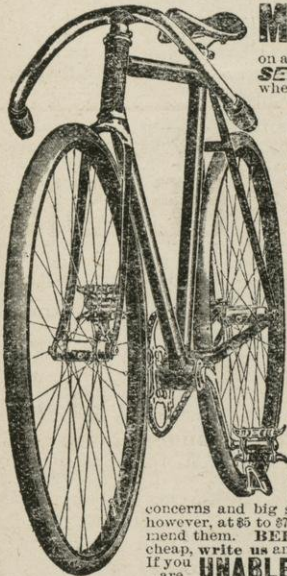
WILLIE ATCHLEY, Beeville, Texas.



FOR APIARIAN SUPPLIES

Address

LEAHY MANUFACTURING COMPANY,
HIGGINSVILLE, MISSOURI.



MONTROSE BICYCLE SENT FREE

on approval to your address **WITHOUT A CENT IN ADVANCE.**
SEND US YOUR ORDER, state whether you wish lady's or man's
wheel; give color, height of frame and gear wanted and **WE WILL SHIP**

THE WHEEL, C. O. D. on approval, allowing you to uncrate and examine it fully before you accept it. If it is not all and more than we claim for it, and a better wheel than you can get for any where near the price from any one else, refuse it and we will pay all express charges ourselves.

The "MONTROSE" Bicycle
at our Special Agent's sample price of **\$16.50**
is the greatest bargain in a bicycle ever offered. We guarantee it equal to any \$40 wheel on the market, and you need not accept it nor pay a cent if you do not find it as we represent. We are **EXCLUSIVE BICYCLE MANUFACTURERS** and take this method of quickly introducing our **1900 MODELS.** This offer of a sample wheel at this low price is made to secure a **RIDER AGENT** in each town to represent us and take orders. Our agents make money fast.

SPECIFICATIONS. Frame, 22, 24 or 26 inch; ladies, 22 inch. Best connections, flush joints, improved expander device to fasten seat post and handle bar; Royal Arch crown; the celebrated **Mavis** hubs and hanger—the easiest running known; **Record "A"** tires, the best and one of the most expensive tires on the market. The genuine **\$4 McSinger** Hygienic saddle; pedals, tools and accessories the best obtainable. Enameled in black, maroon or coach green, highly finished and ornamented; special finished nickeling on all bright parts. We thoroughly test every piece of material that goes into this machine. Our **binding year's guarantee bond** with each bicycle.

FREE to any one sending the **\$16.50** cash in full with order we will send free a genuine **Burdick** 10,000 mile barrel pattern cyclo-meter; or a high grade floor pump. Your money all back if you are not perfectly satisfied.

CHEAP WHEELS. We do not manufacture the cheap department store kind of wheels, such as many new concerns and big supply houses advertise and sell as high grade. We can furnish them, however, at \$5 to \$7 stripped; or \$9.75 to \$12.50 complete. We do not guarantee nor recommend them. **BEFORE ORDERING** a bicycle of any one else, no matter who or how cheap, **write us** and let us tell you how much we can save you on the same machine.

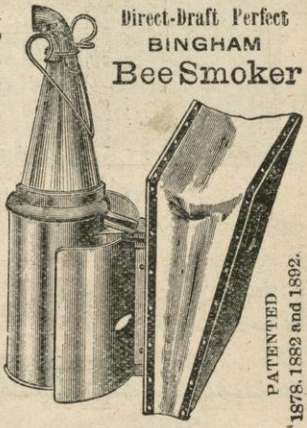
If you are **UNABLE TO BUY** a wheel we can assist you to **EARN A BICYCLE** by distributing catalogues for us a few days. We need one person in each town for this purpose. We have several hundred **SECOND HAND WHEELS** taken in trade which we will close out at \$3 to \$10 each; also some shopworn samples and '99 models very cheap. Send for Bargain List.

OUR RELIABILITY is unquestioned. We refer to any bank or business house in Chicago, or any express or railroad company. We will send you letters of reference direct from the largest banks in Chicago if you wish it. **SEND YOUR ORDER** today. This low price and these special terms of shipment without deposit will be withdrawn very soon. Give name of this paper.

J. L. MEAD CYCLE COMPANY, Chicago, Ill.

PRICES OF Bingham Perfect BEE Smokers and Honey Knives Patented 1878, 1882 and 1892.

Smoke engin { largest smok- } Per Doz.	each
4-inch stove { er made } \$13 00.	Mail, \$1 50
Doctor, 3½ inch stove 9 00.	" 1 10
Conqueror, 3 " 6 50.	" 1 00
Large, 2½ " 5 00.	" 90
Plain, 2 " 4 75.	" 70
Little Wonder, 2 " 4 50.	" 60
Honey Knife, 6 00.	" 80



All Bingham smokers are stamped on the metal



Patented { 1878 } Knives, B&H
 { 1892 }

The four larger sizes have extra wide shields and double coiled steel wire handles. These SHIELDS and HANDLES are an AMAZING COMFORT—all

ways cool and clean. No more sooty or burnt fingers. The Plain and Little Wonder have narrow shields and wire handles. All Bingham Smokers have all the new improvements, viz: Direct Draft, Movable Bent Cap, Wire Handles, Inverted Bellows, and are in every way ABSOLUTELY PERFECT.

Fifteen Years for a Dollar! One-half a Cent for a Month!!

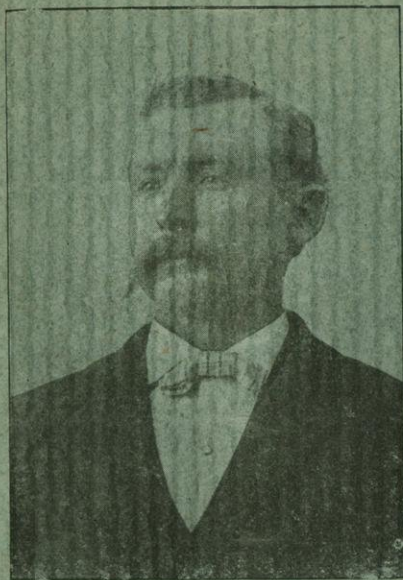
DEAR SIR: Have used the Conqueror 15 years. I was always pleased with its workings, but thinking I would need a new one this summer, I write for a circular. I do not think the 4-inch Smoke engine too large.
Yours, etc., W. H. EAGERTY, Cuba, Kansas, January 27, 1897.

T. F. BINGHAM, Farwell, Mich.

Are You Looking For It?
WHAT?

Are you looking for Foundation to use this year? Then, don't look any farther; as DADANTS, have now been before the bee-keeping world, for many years, stands without a rival today. If you never saw any of Dadants' foundation, send a Postal for free sample, together with their catalogue. They guarantee every inch of their foundation to be as good as sample sent, and no complaints ever come against it. They have also revised, Langstroth on the hive and Honey Bee, and you can scarcely afford to do without this large and valuable book. Post paid \$1.25. We sell every thing needed in the apiary.

CHAS. DADANT & SON, Hamilton, Hancock Co., Ills.



NUCLEI FOR SALE.

One frame, bees, brood and queen, \$1.75. Two-frame, \$2.50. Three-frame, \$3.00. Discount on larger lots. All queens from imported mothers. I will also sell full colonies. Write for prices.

FRANK L. ATEN,
Round Rock, Texas.

Please mention THE QUEEN.

6-9

New York Quotations.

Receipt of Comb Honey very light. There is a good demand for all grades and we quote as follows:—

Fancy White.....15 to 16 cts. per lb.
 No. 1 Amber.....13 to 14½ “ “ “
 Amber.....9½ to 11 “ “ “
 Buckwheat, Unglassed,...10 “ “ “
 “ Glassed or Cartons...11 “ “ “
 White Extracted in barrels...7 to 7½ c. lb.
 Light Amber Ext. in bbls...6½ to 7 c. lb.
 Buckwheat Ext. in kegs...5½ to 6 c. lb.

Bees-Wax in good demand at 28 cents per pound.

FRANCIS H. LEGGETT & Co.,
 Franklin, West Broadway & Varick Sts.,
 Sept. 18, 1900. New York City.

In Tennessee

There is only one Up-to-date journal published in the interest of Agriculture and Manufacture. THE WEST TENNESSEE

INDUSTRIAL JOURNAL

leads all others. A Monthly Industrial Journal with a growing circulation. Has now more than 5,000 readers. Subscription price, 50 cents a year in advance. Advertising rates made known on application. Address

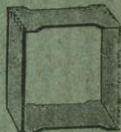
The West Tennessee Industrial Journal,
PARIS, TENNESSEE.

6-8

Please mention THE QUEEN.

BEE-HIVES AND HONEY-BOXES,

in car lots—wholesale or retail. Now is the time to get prices. We are the people who manufacture strictly first-class goods and sell them at prices that defy competition. Write us today.



Interstate Box & Manufacturing Co., Hudson, Wis.

The ABC of Bee Culture.

1900 Edition. The only Encyclopaedia on Bees. 500 Pages.

The last edition, 5000 copies, issued in October, 1899, was exhausted in the short space of one year. Even before the edition was out of the press, 1500 copies had been sold; and before thirty days had passed, 1000 more copies were taken. We immediately set to work to print a new edition. While the edition of 1899 was more thoroughly revised than any previous one, that for 1900 has received even larger additions of new matter, so that the book from beginning to end is almost entirely new. It now contains 500 double-column pages. It has been most carefully gone over by Dr. C. C. Miller, who has prepared a new set of comments, and by Prof. A. J. Cook, of Pomona College, Cal. As before, old subjects have been re-written. Descriptions of obsolete methods have in all cases been stricken out, and the very latest put in their place.

This 1900 Edition marks the 75th Thousand.

It is in many respects superior to any previous one in regard to typographical appearance, quantity of new subject-matter, and general revision old subjects, for we are now building on the knowledge and experience of these latter days, when such wonderful strides are being made.

For the Veteran as well as the Beginner.

While the book is, in the true sense, an A B C of bee culture, in that it is adapted to the requirements of beginners, it is also a comprehensive X Y Z of the subject; for no veteran, no matter how extensive his experience, can afford to be without a work of this kind, containing as it does a carefully prepared dissertation on every late method or practice known to the business. All the bee-literature of past ages, all the current literature of this and every other country, has been carefully scanned; and whatever there is that is new and valuable has been incorporated in this work.

High-Class Engravings.

The most expensive half-tone engravings, taken direct in the majority of cases from fine clear photos, adorn its pages. Besides 50 full-page illustrations there are something like 500 smaller ones, fully setting forth the exact MODUS OPERANDI of every method.

We are confident that this work will save any one who keeps even a few bees, ten times its cost in a single year.

While the book has been enlarged, and hundreds of pages have been rewritten and revised, the price will be the same as before: \$1.20 postpaid, or \$1.00 by express or freight with other goods; or when sent with our journal, GLEANINGS IN BEE CULTURE which is a constant appendix to the A B C book, a journal beautifully printed and illustrated, 42 pages, for the very low price of \$1.75 for the two. For quantity of up-to-date bee-literature there is nothing else offered at this low price.

The new edition is now ready for delivery. Orders may be sent to the undersigned, or to any dealer in bee-keepers' supplies.

THE A. I. ROOT CO., Medina, Ohio.