

The Southland queen. Vol. I [VIII], No. 9 December 1903

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

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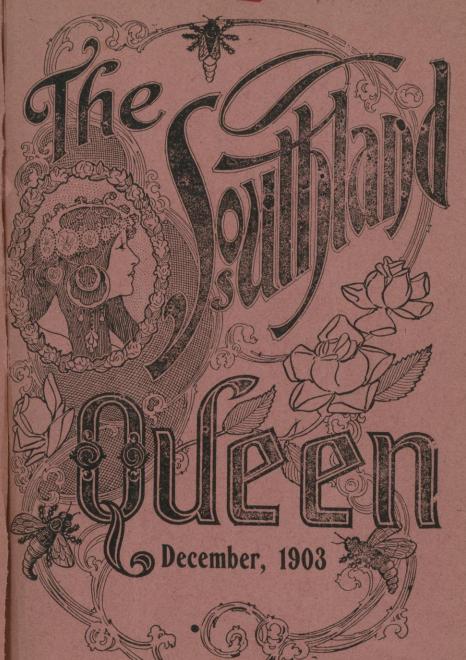
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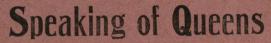
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THE-

Jennie Atchley Co.

P.O. BOX 18,

Beeville,

Texas.

Volume 1. The Southland Order 9. Published Mo-

BEEVILLE, TEXAS, DECEMBER, 1903.

Continued from last month.

OTHER PEOPLES' IDEAS.

Or Notes From the Bee Journals.

J. E CHAMBERS.

And the direct result of the whole business was I always had a lot of weak, queenless or unproductive colonies, but since I have made a practice of hunting up and killing every queen whose colony does not come up to my expectations, I have had but a very few of such poor, unproductive colonies, and furthermore, my yearly average per colony has been much higher. However, I can easily understand why the practice recommended by Mr. Doolittle is a good one in the north. There is but one main flow to speak of, and then the bees have a good deal of time to waste in dwindling and superseding, but with my long and often sudden and unexpected flows it wen't do to have them weaken at any time during the working season, and when a queen lets up

or weakens from any cause during the storing there is always a falling off in the yield of that particular colony. A young and vigorous queen introduced at such times works wonders for that colony.

As to Mr. Doolittle's other statement that many of his best queens live five and six years, I can not dispute that, but do they do good service all that time, is the question. If they do then let him bring them down here, and I warrant they will not. I candidly do not believe there is a queen on earth that will give good service in Texas for a term of five years, and few will stand over three. I know some will dispute this, but it is a fact, nevertheless. As I said before, the seasons in the north are not near so long as the seasons in the south, and that explains in a great measure the difference. A first-class queen up there would play out in second-class time down here, and why not if the total number of eggs a queen can lay is limited, then one that lays well for

a term of five years in the north would be done for in three and a half down here, for I estimate that our queens lay one third more during the season than those in the north. In all probability this estimate is too small rather than too great, but I make this estimate from what I have read in northern journals and from northern writers, the time queens begin and stop laying being used as a kind of basis.

Reply to J. E. Chambers.

Brother Chambers, I did not mean to disturb your sleep, and really I may have made my statements a little strong when I said it would pay a bee keeper to use half his time in wiring his combs. But joking aside, I do think it very necessary that all brood combs should be wired. I do not think Georgia a great deal hotter than Texas, but we do have some extremely hot weather in Georgia, and I could not think of stopping in Texas for a cooler climate Bro. Chambers, if you will wire all of your brood combs and work 200 to 300 colonies instead of 400 and have no broken combs you will likely realize as much money from 300 properly cared for with all nice, straight, wired combs as you would from 400 colonies with combs all twis ted, cracked, broken, messy and

broken combs, which may cause robbing and a big loss to your apiaries.

Then after you have wired all your combs one time the job is over, and is not to be reckoned in the second year's work or thereafter, which will soon enable you to work 500 which have wired combs with the same labor that it would take for 400 colonies not having wired combs. I am not defending Mr. Root's position, as I think he could do that much better than I. but I am speaking from my own experience and to the safety of my own pocketbook. If you wire your brood combs and not your shallow extracting combs then I and you are not far apart in our work, as I can get along with shallow frames without wire moderately well, but for brood frames it is simply out of the question. I often desire to move my bees from field to field to catch honey flows and for other purposes, and that, too, during warm weather, and I would rather give up the business than to do this work with combs breaking down, honey running, bees robbing and a general mess, such as would disgust and put to an end all decency and good humor a bee man ought to possess. I would sign my right name if 1 were pot afraid you would get mad. Then I do not care to be bothered with letters concerning wired combs, etc., as I am too busy to reply to much mail matter, especially such as would pertain to bee keeping, and really I have no time to spare to write this reply, but I want you and the readers of the Queen to know that I am in good humor, and only wish to defend my position honorably as best I can, and I do not think we should fall out with each other and say hard things just because we do not see things just like other people see them. We all have a perfeet right to our honest opinions. Why, it would lessen my respect for my wife if she belonged to a different denomination or different church if she quit her church and came to mine just because I would not go to hers. Also, it is every man's privilege to vote as he pleases, and it does not make me think any the less of my neighbor just because he does not vote the same ticket as I do; but rather I am strengthened in my love and respect for my neighbor when he is guided by that which he honestly believes to be his best judgment. In conclusion, please allow me to say that if you honestly believe in non-wired combs I am perfectly willing, but I just wanted you to know that it is wrong to call other people fools and say hard things about them just because they were not in line with your opinions. GEORGIA.

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THE NEW APICULTURE,

Or a System of Handling Only Hives.

J. E. CHAMBERS.

Under this title I wish to enunciate some of the advantages of shallow hives as used in my own yards and practices. Not that I consider the system new or original, but there are some features now embodied in my way of handling bees in these shallow hives that are not commonly known or practiced. The main features of importance are: First. Ability to manipulate the hives in sections, thus doing away with the tedious and unsatisfactory practice of handling frames singly. Second. Complete control of all colonies at the time of swarming. Third. Ability to do away with swarming by requeening at the time of swarming. Fourth. Power to build a colony to any desired strength in the shortest possible time by adding shallow bodies containing brood taken from other colonies preparing to swarm. Fifth. Ability to make increase rapidly without the disadvantages of having to form weak neclei and wait for their development. Sixth. Affording an easy and rapid means of determining the exact condition of the colonies without having to manipulate in detail. Seventh. More complete control of the bees during the time of active comb building,

and through the early spring development. This feature alone is of great value to the expert and careful apiarist, and to all who place any value on well built out and thoroughly fastened combs. Failure to have the bees in proper condition for comb-building is a fruitful source of annoying failures to get good combs and have them well and securely fastened to the frames.

There are many other advantages of this shallow hive system, and in the hands of an experienced and practical apiarist it is really a new system as distinguished from the practices in common use among the majority of bee-keepers, and that is the reason why I have chosen the title at the head of this article in describing my way of handling bees in these shallow hives. But in order to make this description as intelligible as possible to those who are not at all familiar with these hives or the various manipulations recorded here, I will begin by describing as near as I can in detail all of the most important operations. first spring work is to examine and note the condition of every colony. In doing this work I proceed as follows: Smoker ready at hand, I insert the thin blade of my knife between the joints of the hives and raise them up a very little, blowing a little smoke in at the openings, very gradually tilting

until the top section rests on end. I now put my fore and second fingers between the bottom bars of the frames and spread them apart a couple of inches. Proceeding thus I examine every comb, and if it is a three story hive I remove one comb from the center of the middle story and push the set of combs from side to center, looking at each one as I move it, and if it is considered advisable to examine the lower story it is done by raising it on end, and proceeding as in making the top story examination. As soon as I am through with the examination I make a note of the condition the colony is found to be in, thus-hive No. 1, first-class, or hive No. 2, second-class, and the weakest colonies are put in the third-class. These examinations are made every ten days, and at the second operation those that have not made satisfactory pro gress are marked for special attention, and a super of shallow combs and hatching brood is given to strengthen and encourage them. Those who have practiced it know what an energy maker a lot of hatching bees is to a slow colony. Thus at the third or last examination prior to the date when bees may be expected to begin the swarming racket I have gotten every colony up to the very desirable first-class condition. Now. if the season is a good one and the flow heavy and continuous, there

will be no need of any preventative measures, for the colonies having reached the fullest possible development will expend their surplus energy in storing honey, and very few will think of swarming, but if the season is a poor one or interrupted by rains or cold winds, there will be much swarming unless preventative measures are resorted to. In anticipation of this last possibility I start a lot of queen cells about a week before I expect any swarming. As soon as these are ready I begin operations, removing the top section of the hive, which generally contains most of the honey and but little brood. I place it on the old stand and on top of it place another body containing sheets of foundation. I now move the remaining hives and brood a little to one side after brushing most of the bees in front of the hive placed on their old stand. In order to accomplish this manipulation it is never at all necessary to remove any frames. Just smoke the bees down to the bottom bars and brush them off with a feather from the wing or tail of a gobler. Now the young bees left with the brood removed to one side will start cells in a few days, but before any are ready to seal I give them a ripe cell, and at the same time remove the old queen from the hive on the old stand, and as soon as the young queen is out put her and bees on

the old stand, moving the now queenless old hive to a new location. This is done late in the afternoon, and next morning the bees go to the field for honey but return to their old location. However they are received friendly, and as the desertion is gradual and both divisions have been prepared for it there is no serious disturbance. In a few days the young queen will mate and begin laying. The few bees remaining in the bodies that were moved to a new stand can now be shaken into one body and given a laying queen, thus making some increase if I so desire, but in the event I do not desire any increase all of these queenless bees are given back to the colony with the young queen. Of course it is altogether unnecessary to state the reasons why such a colony will not swarm during the season present, and it is also clearly evident that they will be able to get their full quota of nectar during that flow.

This manipulation is intended to apply only to those colonies run for extracted honey. In case I wish to use the colony for section honey I make this difference: Nearly all the bees are brushed into one shallow hive on the old stand, sheets of foundation are used in all the frames except the two outside ones, these being solid combs of honey or practically so. A super of sections is placed on

top of this, the remaining combs of honey and brood is set a little to one side. In eight days I brush again, and if the flow continues, again in eight days more, but as the flow seldom exceeds three weeks in this locality. I do not brush the last hatched bees, but unite them with the main colony and run through the remainder of the season for extracted honey. During the active comb building season I take particular pains to see that all colonies have just enough room, but at no time more than they can fully occupy, for I have found that the practice of giving too much room, especially early in the season, is a prolific source of evil, retarded development, and consequent poor comb building; but with the deep hives in common use it is often impossible to give out just the exact amount of room needed without overdoing the matter.

After the honey crop is secured we do not handle frames at all, except to uncap and extract. When taking off honey we proceed in the following manner: Provided with a lot of empty shallow hives we go to a hive and remove the cover and blow a little smoke over the top of the frames and immediately throw a wet cloth over the hive. Raising one corner of the cloth we puff smoke down into the hive, at the same time giving the cloth a few vigorous flops to drive the

smoke down among the bees, and quickly remove the super entire. If two are to be taken off the same hive we repeat the operation. What few bees are in the hive go out through the escape in the extracting house. We now place one of the empty hives on the colony and cover it up and go on to the next one.

When we have enough honey for the day's extracting we begin replacing all the combs in the exact order they were in. When we are through all the hives are carried into the bee vard and stacked up, covered secure from robbers. We never put back any freshly extracted combs until after sundown. We begin by lifting off the empty supers, cover and all, and immediately replacing the ones taken off. quickly closing up the hive and dumping the bees found clustered in the empty super in front of the hive to which they belong. It takes about half a minute to each hive, and we easily get through before dark. By this management we never have any robbing, even in the worst seasons, and but little excitement at the time of putting back the supers, and at last, when the storing season is over, if any colonies are found short on winter stores we easily rectify that condition by exchanging supers with some colonies that have more than they need. We are thus enabled to do all of our work in a wholesale way, saving much time, and avoiding any tedious manipulations.

THE SOUTHLAND QUEEN.

E I ATCHLEY - - Editor and Publisher

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

BEEVILLE, TEX., DECEMBER, 1903.

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Our south Texas bee-keepers should know and remember that bulk comb honey candied brings it down to the price of extracted, and even then it requires some trouble to melt it up and take out the wax and strain and recan the honey. It will be best to leave bulk comb honey on the hives, or in the honey house well protected until orders are had to take it. Then extracted can be melted if candied and pack the bulk comb and ship right out to market.

Mrs. A. has been too sick to leave her room this month, but we all hope she may soon be herself again.

The bee-keepers of Wilson and Bexar counties have organized a honey producers' association, and I think a great good will be the result. Members of that association are entitled to the Queen at a special rate. Write the secretary of the association for particulars. This editorial is written out on a bee ranch and no data at hand or I would say more about it.

Let us look sharp to our late swarms and nuclei and see to it that such colonies do not starve or swarm out and their queens get lost, as these late-reared queens are the very ones to give us good returns, as they will breed up early if given a chance, and have strong colonies for the earlier flows. It would really be too bad to lose such queens, for we all know that the queen is the backbone of a honey crop, and especially these young queens for this country.

Charlie has been hauling his bees this month and has new apiaries all established on the Atas. cosa river about fifteen miles west from the town of Oakville in a fine bee locality. Willie and Charlie hazing bought bees all over this territory eight or ten years ago, Charles has had it spotted ever since, as the bees bought in and through that locality were rich and had yielded large crops of honey, even in old box hives

On account of the yellow fever quarantine Willie did not get off with his honey to market last month, but will start soon.

In traveling through the country I find more honey unsold than ever before, some small apiarists having just about all of their honey on hand yet.

Up to December 15th we have not had any cool weather to speak of, only a little ice to be seen one time.

The bees seem to be wintering unusually well this time, and I think they will come through in good shape.

Mr. W. C. Nutt, of Eldora, Ia., arrived with his bees and household goods on November 27th, and as far as could be seen without opening the hives not a single comb was broken down, and out of sixty-six colonies there were four that suffered some loss, but were not entirely killed. Mr. Nutt has taken up his abode in Beeville and has purchased 100 colonies of bees and will run two apiaries next season. He is favorably impressed with this country as a place for bees.

Bro. W. R. Graham of Greenville, Texas, died at his home on December 5. He was the oldest practical bee-keeper in this part of the country and a real good man.

We all regret very much to part with Bro. Graham, but let us hope to join him in a better land. The Queen joins in great sympathy with the family. See other notes regarding this good man in this issue.

On Thursday morning, December 3, W. C. Nutt, late of Eldora lowa, and the editor started for a few days outing to look over the bee plants and locations for outapiaries, and to visit some of our bee yards. The first day we covered about twenty miles, as some time was lost looking at bee yards and we had rather a late start. anyway. When night overtook us we halted right in the middle of a white sand bed, where there was no vegetation in our way, and as the weather was calm and beautiful we were not troubled with sand. We spread down our wagon sheet right on the soft, dry sand and on this lay our cotton mattress, and we had plenty blankets to keep us comfortable, and we had a good night's rest, and the bright moon and stars seemed to shine down upon us, and if I am correct this was Bro. Nutt's first night camping out, and he seemed to enjoy it immensely, his sleep only being broken once by some disturbance, possibly wild cayotes. We arose early next morning and soon made coffee and had our breakfast prepared, as we had the night before made a big fire by piling large mesquite logs together. They did not burn up during the night, but were ready for us with a huge heap of live coals of fire, on which we soon cooked our breakfast. The sun arose bright and we hitched up and drove to our river bee ranch that day, passing other out yards. On arriving at our Nueces ranch I (E. J. A.) soon espied a large gang of ducks on the river, and soon, with gun in hand. I drew near enough the ducks to make a sure fire, killing three fine, fat ones, only one of which fell upon dry land, and Bro. Nutt and I hurriedly rushed down to our boat landing and got aboard of our sheet iron boat and steered down the river and found the other two ducks, one still in the water, but the other one had swam to land. We had a little difficulty in getting down the steep river bank, as Bro. Nutt is a cripple, but I being used to descending, led Bro. Nutt down and we had a pleasant boat ride. That night we slept in one of our ranch houses on a spring bed, and lucky we were, too, for instead of it being clear and beautiful that night we had the reverse and a rain fell, but next day was warm and we again got into our boat, steered down the river about a half mile, landing opposite a clear lake. We made our way out to the lake and soon came upon about 100 ducks playfully feeding about the

edge of the water, and I slipped up within gun shot range and fired into them, killing seven that shot. These were now dead in a heap, or near to each other, out on the water, and as the balance of the gang soon came down upon the water at the further end of the lake I left Bro. Nutt to guard the killed ducks, lest a wild hog, wild cat or cavote should get them, and I slipped up the lake to get another shot, but they having been alarmed by the first shot, flew away before I could get in shot range. Then I came back and found Bro. Nutt seated near by watching the dead game. He was in hiding, as it seemed the flock wanted to alight again where their dead comrades were. Well, how to get the ducks was the question that now confronted us, but I did not wish to go away without them, so I pulled off my shoes and stockings, rolled up my pantaloons and in I went, and soon threw down our game at Bro. Nutt's feet. Now we had about all we could carry and started for our boat, and on reaching it started toward camp, and on our way back Bro. Nutt espied eight fine, large wild turkeys, and I tried to steal my way to within shot range of them, but they were too sharp for us and fled. On reaching camp we dressed a fat duck, Bro. Nutt taking off the coat of feathers while I arranged supper. After supper, by bright

moonlight we get in our boat and steered down the river thinking to find wild turkeys roosting on the large willow trees enerhanging the riverabutathe niver was wery ·low, and we had not gone very far before our boat ranson stora logs in the river and stuck, and we were afraid to push lover that log and risk getting back; as a mile walk hips the river blottom would have been a good big jobdfor Brow Natt. Iso we spulled our boat backward and soon turned toward camp; unsuccessful as to a turkey hunt; but had a nice boat ride son the clear and sparkling Nweges river. We soon reached camp and retired for the night but before doing so stirred the fire around the pot, and next morning we had algood breakfast of duck, bread, coffee, butter and honey, bi Breakfasti over we hitched our team to they back and started down the Nueges river ho Dinero, 25 miles distant: About two miles on our way we halted at the Timon ranch, where Nick our oldest unmarried son and Mr. Lee Timon were spending the week hunting They brought us out coffee and gave us half of a deer. as they had killed three the day before, also four wild hogs! I Now we proceeded on our war jevfully with our load of deer, duck and hog, looking at the bee forage. I had now been three days trying to learn Bro. Nutt such plants as waheah, catelaw, granhania, mes-

quite and cleome I suppose that .Ishad shown himpthese plants 100 stimes, and the third day her sugigested that II only moint and one plantatatime till hergot it down so that he could point it out, and this was a success! for helisoon knew them all m Next we stopped at Mr. Mike Dolan's collecting somertelephone rents and idoing (other telephone work, as westraveledbinostnof the triple alongmour itelephone dines: Soon Mrs. Dolan diad dinner prepared, and we satisfied the inner mancin Afterdresting land feeding our teams on we went down the delephone line, and soon reached Mr. Gerhard's store, oh the southeside of the riverus There wedwere asked to martake of a warm cup of doffee each, fixed the telephone, bader the good people good-bye and soon reached the home and ranch offithat big hearted and whole souled Trishman Pat Sheeran of To have passed his place without staying all night would have almost resulted in shard feelingsin Soomithe Mexican servant had our team out and fed, and we were snugly and comfortably seated by the bright burning, bld fashioned firetin the fire place. We had " as pleasant night (and) next morning before breakfast Mr. Andrews Sheeran, son of Mb, Pat Sheerand took | Brow Nuttrover in the field and showed himbaudead cayote wolf; which was the first Bro. ... Nutt hade ever seen a After

performing data daity to the telephone at that place, putting on new batteries, ellings to bade good. By to Mr. Sheeran, his son Andrew and Miss Mary, his daughter, and soon left these good and genetious people: « Next owe halted sato the home of our minter, i Mr. i Bro C. Good wing nat Dinebox inwhere I the Queensisz pfinted, explecting robget the November issuelitingar found aust to anaile but: MrsuGb had a godre to Beeville the day before and cargied the papers with her's We avaraged one hands and soon started off to our Moolis beetranch; where our daughter Leah und her husdand, Mr. B. "H."Starfey, o lives. Soon we reached that blace onto took of a goods dinner, as we mad Pohonedo them sowhenestwo thriles amaylothatowel would benatotheir place for dinner. After arriving and resting lawhite Bro. Nutt took a stroll dooking at the aplaries and shrubbergial From athis place twe soon found but way to the town of Clareville, collected the referbone rents at that place and pushed oh totelve miles firether thou Rebuilla and bour home, from when debuwa started four days before miBro. Natt says her enjoyed the outing and saw a fine beer confittive still giam a price that will being it in direct J/I wish to greet each of my read? ers and friends with a happy New Year; and Twish for their all a prosperous and happy lot for 1904 ized market camewortsunigilla.hna -in Donth of W. R. Gusham. dont for several years, when the ture Dr. W. K. Marshall, of Marall, Texas, was elected unesident until death, and at the next meetor after Div Marshall died Mr. Graham was referred mesident for Mer William's checupation f om childhood was bee keeping, and after coming to Pexas be also manufactured the to ore suppies, classification of the always density above days of he seemed to mever the of clking bees. Mr. Grahamihas often remarked to the writer that when he had honey to sell he was always able to rattle silver in his pockets. He managed bees by the hundreds - OPONE NOVEMBER 12 TERE 1909 OW. Te. Grahamis of to Gleenville, Texas, bassed whave Mr. Gradium was one of the heading week repers of Texas and has always up to within anfew months of this death been willing and ready to hassist 1986. keepers many way lie tourd condistentive unit Grinait was noted in Jeffelsonville, Lee Codinty, Wat, en January 14th; 1828! miHel ind fessed religions in his buineteehth vent, lind Tived thereafter wimenber drithe Methodist edurch, The was married to Miss Eletta Poteet in 1851. He was the father of nine children, of which five survive him. He moved to Texas in 1874 and settled in Greenville, where he has since dived and died." He organized the Texas State Bee Keep-

ers' Association, and was its president for several years, when the late Dr. W. K. Marshall, of Marshall. Texas, was elected president until death, and at the next meeting after Dr. Marshall died Mr. Graham was elected president for Mr. Graham's occupation from childhood was bee-keeping. and after coming to Texas he also manufactured bee-keepers' supplies. Mr. Graham was always pleasant to all about him, and he seemed to never tire of talking bees. Mr. Graham has often remarked to the writer that when he had honey to sell he was always able to rattle silver in his pockets. He managed bees by the hundreds of colonies, and was always successful. His kind words and pleasant smiles will be greatly missed at the conventions and by those that lived around him. In his death bee-keepers lose a dear, loving brother, and his family a kind and generous father. Let bee-keepers far and near join in sympathy with the family, and may we all remember the influences for good of such a long and honorable life, which can not be estimated, but will be a heritage of which his children and friends may always be proud.

A FRIEND.

L. B. Smith, of Rescue, Texas, writes, Dec. 18th, that he has been quite sick for some time with la grippe. Is it possible that old "grippe" will tackle a bee man as well as other folks.

A CLIPPING

From a Floresville Paper About the Texas Honey Producers' Association.

The bee men of southwest Texas, who have been holding a series of meetings in Floresville, are now well organized and incorporated under the laws of Texas, with \$5000 capital, divided into 500 shares and made assessable. The capital stock is all subscribed for, but when a bee-keeper wishes to become a member certificates are transferred to him.

They began the conduct of business on September 1, and up to October 1, when the charter was granted, they had disposed of nearly fifteen tons of honey and had control of nearly 5000 colonies of bees.

This association will give a new impetus to the bee industry, because members get their supplies, including cans, at wholesale prices and retail prices for their honey. Extensive plans are being inaugurated for the betterment of the condition of the bee-keeper and the placing of the honey market on a firmer basis by guaranteed full weights and purity, together with a price that will bring it in direct competition with other sweets. At present the producers are experiencing not only a greater production than demand, but a demoralized market on account of much honey being packed in the past with utter disregard to rules of grading or neatness or care in packing.

The board of directors, consisting of Dr. J. B. Trehon, president; L. Stachelhausen, vice-president; M. M. Faust, G. F. Davidson, W. E. Crandall and E. R. Longnecker are formulating rules for grading, packing and marketing, which will at once place the product of the association in demand, because the dealers will at once know upon what to depend. Samples are required at least three times a year from all members and as often as the honey seems to take a decided change in flavor and quality.

Promptness in the delivery of honey by the railroads is another thing the association is watching with much interest and is collecting data of. At present it takes from six to twelve weeks to get a local shipment into North Texas and the territories.

Commission men and others who at the outset looked upon the association with contempt are now upon a tottering fence or have fallen entirely on the favorable side, owing to the quiet but determined policy now pursued. Agents of trusts are now placing bids with them and making desperate efforts to make prices that will defy competition for the present, when, according to the golden rule of the trusts, the producer, or

rather the consumer in this in stance, must suffer. With the efficient anti-trust laws of our state, and the determination of the beekeepers, it is safe to say they will live together or die in the attempt.

Next year considerable section honey will be raised and an effort to open the market of our larger cities will be pushed with vigor.

Protection of the producer has also been carried out within the association by the heavy bonding of Secretary and Manager Lafayette Haines and Treasurer J. H. Brown of the First National Bank of Floresville. The office and the warerooms of the association are located in the Southern Cotton Oil building, northwest of the depot, Floresville.

ARTICLES OF INCORPORATION.

Article 1. The corporate name and style of our said association shall be the Texas Honey Producers' Association.

Art. 2. The object for which our said association is formed and incorporated is for the purchase and sale of goods, wares and merchandise, and agricultural and farm products.

Art. 3. The capital stock of our said association is five thousand dollars, to be divided into five hundred shares of ten dollars for each share, and said stock shall be assessable not to exceed the

mount of stock held by each stockholder when each assessment is made.

Art. 4. Our said association is to exist for a term of fifty years.

Art. 5. The affairs and management of our said association is to be under the control of a board of seven directors, and Dr. J. B. Trehon of Floresville, Texas, L. Stachelhausen, Converse, Texas, George W. Hufsteder, Beeville, Texas, M M. Faust, Floresville, Texas, G. F. Davidson, Fairview, Texas, W. E. Crandall, Floresville, Texas, and E. R. Longnecker, Lytle, Texas, are hereby selected as directors for a term of one year, and to manage the affairs and concerns of said association for said term herein specified, and until their successors in office are elected and qualified.

Art. 6. The place of business of our said association shall be in the town of Floresville, County of Wilson, State of Texas, until it shall be deemed necessary and advisable to change same in the manner provided by the statutes of the state of Texas.

Art. 7. The board of directors shall have power to make such prudential by-laws as they may deem proper for the management of our said association according to the statutes in such case made and provided. Provided, however, that said by-laws shall not be contrary to or inconsistent with any

by-laws that may be adopted by the stockholders. These articles of incorporation may be amended at any annual or special meeting by a two-thirds vote of the stockholders present, due notices having been given to that effect to each stockholder as provided by the statutes of the state of Texas.

In testimony whereof we have this day hereunto set our hands and seal on this 1st day of October, A. D. 1903.

J. B. TREHON, M. M. FAUST, M. C. WEST.

BY-LAWS.

Article 1. Any bee-keeper who is not a honey dealer may become a member of this association by purchasing one or more shares of stock.

Art. 2. The officers of this association shall consist of a board of seven directors, who shall be stockholders, and except the first year shall be elected by ballot at the annual meeting of the stockholders of this association to serve for one year and until their successors in office are elected and qualified. Their term of office shall begin immediately after their election.

A majority of the directors shall constitute a quorum and be competent to fill vacancies in the board, and to transact all business of the corporation. Immediately after the adjournment of the meet-

ing of the stockholders at which said directors are elected, said directors shall convene in meeting and organize by the election by ballot of a president, who shall be one of their own number, and shall appoint a secretary and treasurer and such other officers as they may deem necessary for the association.

The directors may adopt by-laws for the government of the association, but such by-laws may be altered, changed or amended by a majority vote of the stockholders at any election or special meeting ordered for that purpose by the directors on a written application of a majority of the stockholders or members.

One person may hold the office of secretary and manager at the same time.

Notice of all meetings of the stockholders shall be given by mail at least thirty days previous to said meeting.

If any director shall absent himself from two consecutive regular quarterly meetings of the board of three directors without a reasonable cause being shown for such absence it shall be sufficient cause for his removal as such director, and the board of directors may declare a vacancy to exist without notice to such member, and may proceed to fill such vacancy before adjourning the meeting at which such vacancy was declared to exist.

It shall be the duty of the board of directors to meet at Floresville. Wilson County, Texas, according to the notice of the secretary, on the first Tuesday of January, April, July and October, to hold such meetings from time to time as may be called by the president, to sign the records of all meetings, to supervise all agents, officers and employes, and to see that their duties are properly performed, and to formulate rules for a uniform system of grading, packing and marketing honey under a common brand.

The board of directors shall constitute a grievance committee by which any grievances may be adjusted, and all complaints shall be made before it in writing, and its findings must be final.

Art. 2. The president shall be the chief executive officer of the association. It shall be the duty of the president to preside at all meetings, both of the directors and of the association, to sign, execute and deliver all certificates of shares of stock, and all deeds, contracts and instruments of every kind of said association, countersign all orders drawn upon the treasurer when properly vouched for, and to do and perform such other duties as may properly belong to his office.

Art. 4. It shall be the duty of the vice-president in the case of death, absence or inability of the president to act, to perform all the duties of the president.

Art. 5 It shall be the duty of the secretary to keep a correct record of all proceedings of the association and the board of directors; to receive all money, and immediately pay same to the treasurer, and to take his receipt for the same: to draw all orders upon the treasurer, countersigned by the president, to take and record the names and addresses of every stockholder, to report at each meeting the names of new members, to preserve all papers belonging to the association, to give notice by mail of all meetings, to conduct all correspondence, to countersign and attest all certificates of shares of stock issued, and all deeds and instruments issued under the seal of the association, to affix said seal thereto and enter on the books of the association all transfers of shares of stock of this association. and to deliver to his successor in office all books and papers belonging to the association.

Art. 6. It shall be the duty of the manager to have general oversight and control of the association under the supervision of the board of directors, to do the buying and selling for the association, to attend to the storing, selling and shipping of goods consigned to the association, and his powers, duties and compensation shall be fixed and determined by the board of directors, subject at any time to be increased or disapproved upon good cause shown.

The treasurer need not be a member of the association, and a banking corporation may act as treasurer.

Art. 7. It shall be the duty of the treasurer to receive and hold all funds of the association, deposit the same in a national bank and to pay them out upon the check of the secretary, countersigned by the the president, unless the board of directors shall otherwise order.

The treasurer shall execute a bond to this association for such sum as shall be satisfactory to the board of directors, to increase or disapprove at any time upon good cause shown.

Art. 8. The stockholders of this association shall meet annually at Floresville, Texas, on the last Tuesday in December, unless this day is a legal holiday, when the meeting shall take place on the day following, for the transaction of any and all business properly coming before them, and only persons having stock appearing on the books of the association shall be entitled to vote, one vote to each member.

Art. 9. Any one purchasing stock of this association shall receive no dividend or profit accrued previous to the purchase of said stock.

Art. 10. The funds of this association may be used for any neces-

sary purpose the board of directors may consider for the interest and advancement of the association, but the directors shall not be allowed to hypothecate or encumber any property of the association unless upon a majority vote of the stockholders. Any surplus money accruing over and above the expenses of the association shall be divided at the regular annual meeting of the stockholders, as follows:

First. A dividend of one dollar shall be paid on each share of stock issued.

Second. Ten per cent of all surplus remaining after said dividend has been paid to the stockholders in proportion to the amount of stock held.

Third. The remaining surplus shall be rebated to the stockholders in proportion to the amount of commission paid by them during the year. Said dividends and rebates to be paid to those who have become stockholders previous to August 1 of the year in which said surplus accrued.

Italians, earn introduction or

Dr. J. B. Trehon, president, Floresville; L. Stachelhausen, vice-president, Converse; George W. Hufsteder, Beeville; M. M. Faust, Floresville; G. F. Davidson, Floresville; W. E. Crandall, Floresville; E. R. Longnecker, Lytle; J. H. Brown, treasurer, Floresville; C. E. Williams, secretary and manager, are the directors for 1903.

OUR SCHOOL BY THE EDITOR

I take the liberty to ask you about the

bee localities in your part of Texas.

OSWALD KELDET.

Montello, Wis.

Friend K.—We have good territory for bees in Southwest Texas, but the pasturage near Beeville is pretty well stocked. We have many shrubs here that produce honey every year, rain or not, and then when it rains plenty we have horsemint and other annual plants that give honey. Our early honey is of good quality.

Can you tell me about bulk comb honey as produced by bee-keepers of Texas?

R. G. PIKE.

Carson City, Nev., Nov. 25, 1903.

Friend P.—There has been a great deal said at conventions and written about bulk comb honey, and it has been pretty generally discussed but likely you have not had any of this information. We South Texas bee-keepers have built up a good trade for nice, white bulk comb honey. We cut out the nice, white, tender combs, which are in all respects as good as section honey, or ought to be. We pour in a little bit of extracted honey in the can, then pack full of comb and then fill up all nooks with extracted honey till the can is full, then you will have what we call bulk comb honey. If care be

taken in selecting and packing the honey will be as good and as toothsome as any section honey of the same quality, or that which is gathered from the same source. We have almost given up the production of section honey since bulk comb has found such ready sale at satisfactory prices.

I want to go into the bee business and wish to know what is necessary to start with. How much money can I clear from twenty colonies of bees.

T. W. McMickle.

San Antonio, Nov. 28, 1903.

Friend M .- It would take quite a long story to tell what all would be necessary to go into the bee business and all the necessaries. First, a person that loves bees; next a locality, right kind of hives, smokers, frames, etc., and the right kind of bees. You ought to get fifty pounds of honey from each good colony in the spring, and if you get 8 cents as a basis for comb and extracted honey, that will be \$4 per colony, and \$20 ought to foot the expense of working the colonies. So if you have your 20 hives and supplies for them you ought to have \$60 at least from your twenty colonies.

I wish to move some bees from Waring, Texas, to Sabinal, Texas, a distance of 115 miles. Would it be best to take the covers off of the hives and tack on wire cloth? Is it necessary to fasten the frames of such hives as are not of a fixed pattern?

A. G. Anderson.

Sabinal, Texas.

Friend A.—It will not be necessary to take off covers in winter, but tack wire cloth over entrances, which will give ventilation enough if the weather is cool, as there is no brood in the colonies at this season to speak of. It will not be necessary to fasten the frames of any colonies unless the frames have been handled lately. It will be quite sufficient to just ventilate the entrances and arrange your hives in the car so that the frames will run lengthwise of the car.

Please answer some questions for me. Describe the quality of the Cyprian, Holyland and the Albino bees, their habits and disposition. What do you think of a cross between the Italians and either of the above three races?

W. L. SMITH.

Richmond, Va.

Friend Smith.-You will notice that these bees are all described and pretty thoroughly noticed in lessons in our catalogue. The Cyprians are much like the Italians in size and color, but they are much worse to sting, as a rule, than pure Italians, especially when one has not been used to handling them. If you are an expert you can quickly distinguish the difference. The Holylands are of a more ashy color, slim and much more pointed than Cyprians or Italians, and if there is room for a difference they are worse to sting than the Cyprians. The bands are narrow, and the under side of their bodies are of a whitish color. The Albinos are a sport or a mixture of other races. I think either of these races crossed makes a good bee. I prefer a Cyprian and Italian cross to either.

Notice the by-laws of the Texas Honey Producers' Association in this issue

Teachers' Interstate Examination Course.

Teachers wishing to prepare for examinations should write at once to Prof. J. L. Graham, LL. D., 152-154 Randolph Building, Memphis, Tenn., for particulars concerning his specal Teachers' Examination Course.

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

Hives and Fixtures.

It is hives and fixtures for the apiary we propose talking about in this article, as we are continually being asked, which is the best hive for the beginner in apiculture to select? Would you select the eight or ten frame hive, and which is the

best frame, the standard Langstroth non-spacing frame or the Langstroth self-spacing frame, or would you select a shallow frame, such as is used by L. Stachelhausen, J. E. Chambers, the late J. H. Martin (Rambler), and others too numerous to mention. These and many others pertaining to apiculture discussed through the various bee journals are questions that are continually being asked, and are not likely to be settled soon. However, at the risk of stirring up a hornet's nest among the bee brethren that do not see as I do and do not use the hive and frame I do. I will give what I consider the best hive and frame for the beginner to select. First, I should select the standard ten-frame Langstroth hive if I were going to work an apiary exclusively for extracted honey, and work only nine frames in the two upper stories. I use at least three stories for each full colony, and if an eight-frame hive is used I work them four stories high, but the ten-frame size will give the best satisfaction when one works for extracted honey, but for comb honey I would use nothing larger than the eight-frame hive, and especially if I were working for section honey. As to the frames I would use, I would not think of using anything but the non-spacing, thick top bar frames. All of the self spacing frames with their short top bars are a perfect

nuisance in my hands. These conclusions are not hastily drawn from working one or two hives for a short time with such frames, but from working whole apiaries of fifty to seventy-five colonies for two and three years on such frames. How any one can advocate such frames after having used both kinds is another one of the great many things I do not know, and that I am not alone in this feeling toward the self-spacing nuisance will readily be seen by turning to page 339 of the Bee-Keepers' Review for November, 1903, and see what the editor has to say under the head of self-spaced frames. But every one to their own notion, as the old lady said when she kissed the cow. But I believe the day not far distant when the selfspacing feature in the Langstroth frames will not be so generally advocated as now. In fact I do not believe they ever would have been so generally adopted by bee-keepers had it not been for a few of the prominent supply dealers pushing them so forcibly to the front, not questioning their good motives in the least for so doing, but I have always felt and still feel that it was only a step backward in apiculture. L. B. SMITH.

Lometa, Texas.

We notice the bees bringing in pollen to day at some yards on the Nueces river.

our test your ment to bear

From Spartanburg.

I notice in your last issue that you said you would possibly have to give up the paper, as you could not get a postage rate on it. Now, I for one do not want this to be, as we southern bee keepers need a journal, and I don't know of any one else who could run it to suit us better than E J. Atchley. Instead of giving it up, let us all get a move on us and keep it. Come out twice a month and make it the best journal published. I for one will give \$2 a year for it and have it come that way, and contribute an article for it now and then. Now, Mr. Atchley, get a move on you and see what can be done. Northern journals are all right for northern bee keepers, and I find lots of good things in them for us, as I read three besides yours, and I expect to continue to take and read them, but I do want at least one good southern journal. Get behind it and let's have it next year. W. M. BAILEY.

Spartanburg, S. C.

Three Stages of Successful Bee-Keeping.

R. L. TAYLOR.

There are three stages in successful bee-keeping, initiation, expansion and fruition. Initiation is, of course, the first stage. In it the ground work is laid, and if

done thoroughly and nothing intervenes to turn the tyro aside, is a guaranty of success. In it comes, first, the puffed face, the fear of stings and the dread of opening the hives to give a colony some needed attention. At this point comes the first vital struggle. If by the exercise of courage, and the giving of every attention necessary and imagined, the dread is overcome, everything promises to go well; but if there be a failure here, if dread causes neglect at the outset, it is liable to never be overcome, and this beginner is likely to go through his bee-keeping experience believing that the moths destroy his bees, that the time to put on supers is when spring opens, and that the time to take them off is when snow flies; not knowing till then whether the bees have deposited any honey in them or not. In short, he will find beekeeping profitless, and his continuance in it is likely to be brief. But the one who conquers dread will find it the beginning of knowledge. Now the hum of the bees in their first flights in the balmy spring air, and in their gathering the early nectar from the willow and the maple, will have a charm for him that no other music ever had. Now he will give the bees no rest in his eagerness to watch the queen and the progress of the colony. Soon he will have a vellow queen and begin practicing introducing; and then will watch anx iously for the first hatching of her progeny. After that he must rear some queens from her, and he will be found forming nuclei to secure their fertilization, and in due time will be found reclining on the green sward in front of the nuclei. watching for the queens to come out for their first flights, and waiting their return to discover evidences of their success. Then some more experience in introducing queens, and in counting the egg to the emerging bee, and from the emerging bee to its demise. These are the times when, in visions of the night, he will see queens stalking about and endless swarms passing through the air. This may be at the expense of a crop of honey, but he who has not been through all this and much more is not likely to be successful in bee-keeping.

The Second Stage, Expansien-Next comes the stage of expansion. Thoughts of the flora, the most favorable fields, of out apiaries and carloads of honey will begin to take possession of the mind. Books and journals will be studiously scanned for the latest and best methods and devices and ideas. Most careful study will be made of hives and supers, that, if possible, he may unerringly fix upon those best suited to him and his locality. A honey house will receive due attention, and the best

method of wintering for him will agitate his thoughts. The country about will be explored to discover the most convenient and promising localities for establishing apiaries. The making of hives, supers and other supplies-shall he manufacture them himself, or some classes of them, and to what extent?. If he has some mechanical skill, especially if he be without abundant means, he will, in the interest of economy, make about everything needed, except the sections. A saw table at home will be the most convenient, but the work can be profitably done by the use of a saw at a neighboring planing mill. Prospects of large crops of honey, even a large crop already secured. wili not be allowed to breed extravagance. A low grade of lumber, if it be white pine and beetight, is quite as good as the upper grades, barring a trifle more waste. and if used with reasonable care. will last a life time. Practical utility and not show will hold sway until a firm foothold in the business has been secured. Growth will be substantial rather than rapid. Labor may be cut in two by studying conveniences, so care will be exercised at every step in the position of the apiary, with reference to the honey house and the wintering repository. So far as possible no tall or difficult trees will be allowed near the apiary. that annovance and loss of time may be reduced to a minimum during the strenuous season of swarming. The selection and careful cultivation of a strain of bees of the highest excellence will command the best attention from the outset. The temptation which the easy methods of increase present will be firmly resisted. Some moderate rate of increase, not to exceed doubling yearly, will give the best results and doubtless more bees in the end.

The Last Stage, Fruition.-But the time for fruition comes on. The colonies have become strong and are numerous. The promise of honey producing flora is everywhere pronounced. The ring of hammer and saw is hushed and the ranks of supers filled with foundation; furnished sections are in order ready for the bees at a moment's warning; for the bee-keeper may surprise time, but he must not be surprised by it. He will have all things in readiness that when the season for surplus stock arrives he may be free to give all necessary attention to securing it. As soon as the hives are teeming with bees, and nectar is beginning to come in freely, a super will be furnished each colony, and others will be furnished as rapidly as the reugirements of the colonies demand them. With these conditions and all requirements satisfied, the mass of the product will rapidly swell so that the bee-keeper himself, as he removes and stores the bright-capped nectar, will feel that his cup runneth over and be satisfied. But however beautiful, he has no thought of holding it permu en ly; for now, as soon as possible, he would convert it advantageously into coin of the realm, and this is next and final trouble. Not that it is difficult to sell it, that is easy enough, but to sell it advantageously.

Disposing of the Crop -This whole subject is sometimes called commercial bee keeping, but beekeeping is not commercial, it is purely industrial. The disposing of the product is purely commercial. Hence arises a difficulty. The bee-keeper, if he sells his own product, engages both in industry and trade. He must be both producer and merchant. Few men are well fitted for both occupations. One man is a born trader, and if he were engaged in bee-keeping he would gradually work out of it, or make it a side issue and engage in some sort of trade, most likely the honey trade, bee-keepers' supplies and queen bees. It may be noted that farmers' sell their products generally and find little difficulty, but their wheat, corn, wool and cattle have a market price more or less stable, and the market price agrees closely in different markets, cost of transportation considered. It is different with honey. This is not sufficiently liquid, if I may use the expression, to seek its level in the markets. It is not infrequent that the price offered in one market is from 25 to 50 per cent higher than is paid in another, where the price ought to be just as high.

Grading Rules .- Bee-keepers are hampered by the set of artificial and impossible rules now in vogue for the grading of honey, which seem framed for the purpose of giving unfair purchasers of honey something about which they may complain with some show of reason in order to mulct the seller in a cent or two a pound, in that he claims to see stain on cappings of fancy honey, and more than the prescribed amount on grade No. 1. Strange to say, these rules entirely ignore quality; and thin honey, with an unpalatable tang, other things being equal, marches fully abreast with the rich, thick, well ripened article. They strain at a gnat and swallow a camel. Every comb honey producer knows that not one section in a thousand can be found that will not show some



stain, and that a degree of stain that does not disfigure the honey is no detriment, but rather a guaranty of ripeness. I shall not discuss these rules here, further than to say that any set of rules made to govern the grading of comb honey ought to insist on high quality for the higher grades Such a rule would at least have a tendency to disseminate a knowledge of the conditions necessary to the thorough ripening of honey, as well as to put honey under such conditions. I have no doubt that in the end it would increase the demand for honey, and thereby increase the ease with which honey may be sold.

Shall the Producer Become a Dealer?-Well, to return. We see that it is conditions and not theories that confront the bee keeper in his endeavors to arrive at full fruition. In these conditions may found perhaps the strongest argument in favor of organization of bee keepers for the sale of honey and the control of the honey market If theories could be realized such an organization could secure the grading of honey on its merits by competent men and keep the markets in different parts on something like equality. But as things are, what shall our bee-keeper do? With his first good crop of honey, altogether without experience in marketing it in quantities, and in so far as dealers in honey are con-

cerned, alike unknowing and unknown, what is he to do? It would be very natural for him to turn for information and advice to the apicultural journals which he takes. and even personally to seek counsel and aid from their editors. Are they honest? None honester. But the more prominent ones are largely engaged themselves in the purchase and sale of honey, and it is a sound principle of the common law that no man may be judged in a case where his personal interests are concerned. Though one may easily, and perhaps does generally. imagine it is not so with himself, vet it remains true that it is not in human nature to avoid being swaved by one's personal interests. It is evident that our bee keeper must come to the conclusion that he has something yet to learn about this part of the business. If he has a natural turn for trade he may develop that aptitude, if there are some considerable towns within reach, by selling his own honey to retailers or to both retailers and private families, as well as to hotels. If he is careful to have honey of a really first class quality, not first-class in looks only, he is liable to surprise himself with the magnitude of the trade he can build up, if he persists in working industriously in this direction for two or three years. Or he may be fortunate enough to be able to secure the services of a stirring man

with a taste for trade, who can make movey both for himself and his employer. Another course open to him is to cultivate an acquaintance with a number of dealers in honey who purchase their stock. In this way he will have no trouble in making sales, if the prices can be agreed upon. If possible, it is better to sell on the personal inspection of the purchaser. Recourse may safely be had to commission merchants. If the beekeeper believes in specialties, and prefers to confine himself to one business, that course may naturally be preferred. Commission merchants are not always dishonest, but care will be exercised to select only such as are proved to be reliable by a reputation founded on a long established business. may be that not quite so much will in this way be realized from the honey, but the specialist may be able to keep enough more bees on account of the relief thus obtained to balance the loss. And finally, if none of these methods prove permanently satisfactory, the bee-keeper may east about to see if a combination of extensive bee-keepers of his acquaintance cannot be formed with a view to pooling issues, and selecting one of the number specially adapted to the business to dispose of the combined product. In this way uniform grading rules might be secured and sales more satisfactorily made. -Bee-Keepers' Review.

Modern Queen-Rearing.

HE. L. PRATT.

Queen bee raising has become an important industry in itself in America. There are now numbers of expert men who devote their entire time and give their best thoughts to this important branch of apiculture—they are termed queen specialists; an entirely different type of bee-keeper from those who turn their attention to wax and honey production.

The commercial queen raiser is generally an enthusiastic person who pursues apiculture on purely scientific and business principles; he studies, thinks, experiments, and is quick to adopt short cut methods, for the season in which good, long lived queens can be produced extends over but a few months of the year and unless marketable queens in plenty are on hand large orders are lost.

Marked achie rements in queenrearing methods and devices have
been made in America the past
few years. In cell starting it was
once thought necessary to dequeen
a strong colony and to afterwards
cut from the combs what queencells may have been started in
their effort to supply for themselves another queen mother. This
was, of course, slow, rainous to the
colony. In fertilization of the virgin queens that hatched from these

cut cells there was even greater loss in bee life, time, material and labor. The professional queenbreeder is forever casting about for methods to lighten his work and cheapen his product-thus the advent of the so called "artificial queen rearing" in which the foundation stones were laid by the veteran specialists, Alley and Doolitthe

Not content, however, with the original plan of these old masters in the art, several modifications have of late been brought forward by a few of the younger men in the profession, until now it is simply a question of how best to harness the egg for quickest and best results, and how to best dispose of the queen cell obtained up to the time they are due to hatch and thereafter.

In the fertilization of the virgins very marked improvements have been made. The bees that were once used to fertilize one queen are now divided into fifty parts by the use of small boxes. Each box is then given a young queen, and it is found that she will fly as naturally from it as from the large hive, thus reducing the expense quite materially and rendering marketable fifty queens in the time of one. The Swarthmore method of queen rearing is perhaps the most extensively used plan because of its great saving in time, excitement and material.

(To be continued.)

INSTRUCTIONS

HOW TO GRADE AND PUT UP COMB HONEY.

No. 1 Comb Honey-Sections should be well filled and capped; honey and comb must be white and not protruding beyond the wood; sections must be scraped clean, so as to make a nice appearance.

No. 2 Comb Honey includes all white honey where sections are not so well filled and capped, and honey tinged with amber.

Cases of separated comb honey should not weigh less than 21-22 pounds net to the case of 24 sections.

Do not put up poor or cull comb honey, but dispose of honey of this kind

When grading honey do so by day time and near a window.

We advise having all cases marked on the side with owner's name only, put on with a small rubber stamp, not the town or state.

On some of the honey we received last season we noticed that papers on top of the cases were protruding from tho edges, which mars the appearance of the package. It is just as easy for your te get paper the exact size of the box is it is to have it larger.

We also caution producers against using too large a package, as it will necessitate placing a follower in the back of the case, which often becomes loose and causes breakage and leakage to the honey in transit. This has been our experience in the past t

It is also advisable ail or paste the trip sticks to the boo tm of the cases, as it will prevent their sliding out of place, which often results in damage to honey.

What we want to call your attention to particularly is to have your honey graded the way it should be, both as to weight and quality.

S. T. FISH & CO., Chicago, Ill.

189 S. Water St.

Farmers' Institute Announcement.

The Agricultural and Mechanical College, through its department of Farmers' institutes, will organize and hold fustitutes at many points in the state during the fall and winter months, and communities wanting an organization are urged to notify the directors of Earmers Institutes as soon as possible in order that dates may be arranged to conform with other places. These institute meetings bring together the farmer, the specialist and the scientist for instruction and discussion of agricultural problems, methods and crops, and as the winter season is now approaching, farmers are urged to hold institute meetings for the discussion of methods and plans that may be advantageously femploved in the next crop.

For institute meetings competent lecturers will be supplied upon application to this department, and in making such application it is important to state the subject upon which the lecture is desired.

The college especially desires the organization of institutes in counties where no institutes have been held, and the director solicits correspondence with interested persons in such counties; and if not more than one person be interested and cannot work up sufficient interest for a meeting the directors of institutes will aid in working it up. Information on agricultural subjects will be furnished when requested, and correspondence with the director is invited.

R. L. BENNETT, College Station, Tex

Grace Cell Compressor

A handy little machine for quickly forming wax cups by pressure for queen rearing by the Swarthmore plan. Queen cells will be constructed from these cups

fully equal to the natural kind.

Each cell can then be separately removed for examination, caging or placing in nuclei, without lifting combs or opening the hive. The cups will last for years, and can be grafted over and over with increasing success. Used and highly recommended by many well known apiarists.

PRICE OF COMPRESSORS.

Swarthmore Nursery Cage.

For receiving the started Queen cells in full colonies (containing a laying queen) for completion, incubation, hatching or confining a number of virgins until they can be introduced to nuclei. By the use of this cage cells may be placed directly in the midst of the brood chammber in such convenient position that the cells may be removed without opening the hive proper or in any way disturbing the bees, thus saving much time, labor and excitement.

PRICE OF CAGES.

agga complete colle com

| postpaid | 75 |
|--|----|
| I cage, cells not compressed, post- | 13 |
| 2 cages, cells compressed, with hold- | 50 |
| ing frame\$1 2 cages, not compressed, with hold- | 25 |

E. L. PRATT, Swarthmore, pa.

A Live Bee Journal

Is a necessity to every bee-keeper. You will find such a one in the Rocky Mountain Bee Journal. Send for it. It will keep you from going to sleep. Send 10 cents for three back numbers of different issues, or better still, fifty cents for a year's trial. Address the publisher,

II. C. MOREROUSE,

Boulder, Colorado.

Teachers Wanted.

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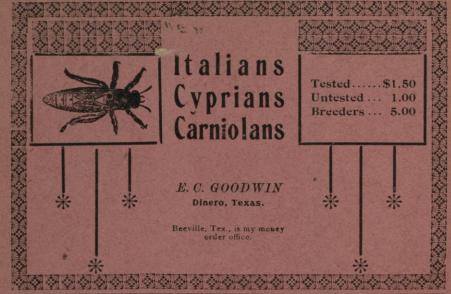
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