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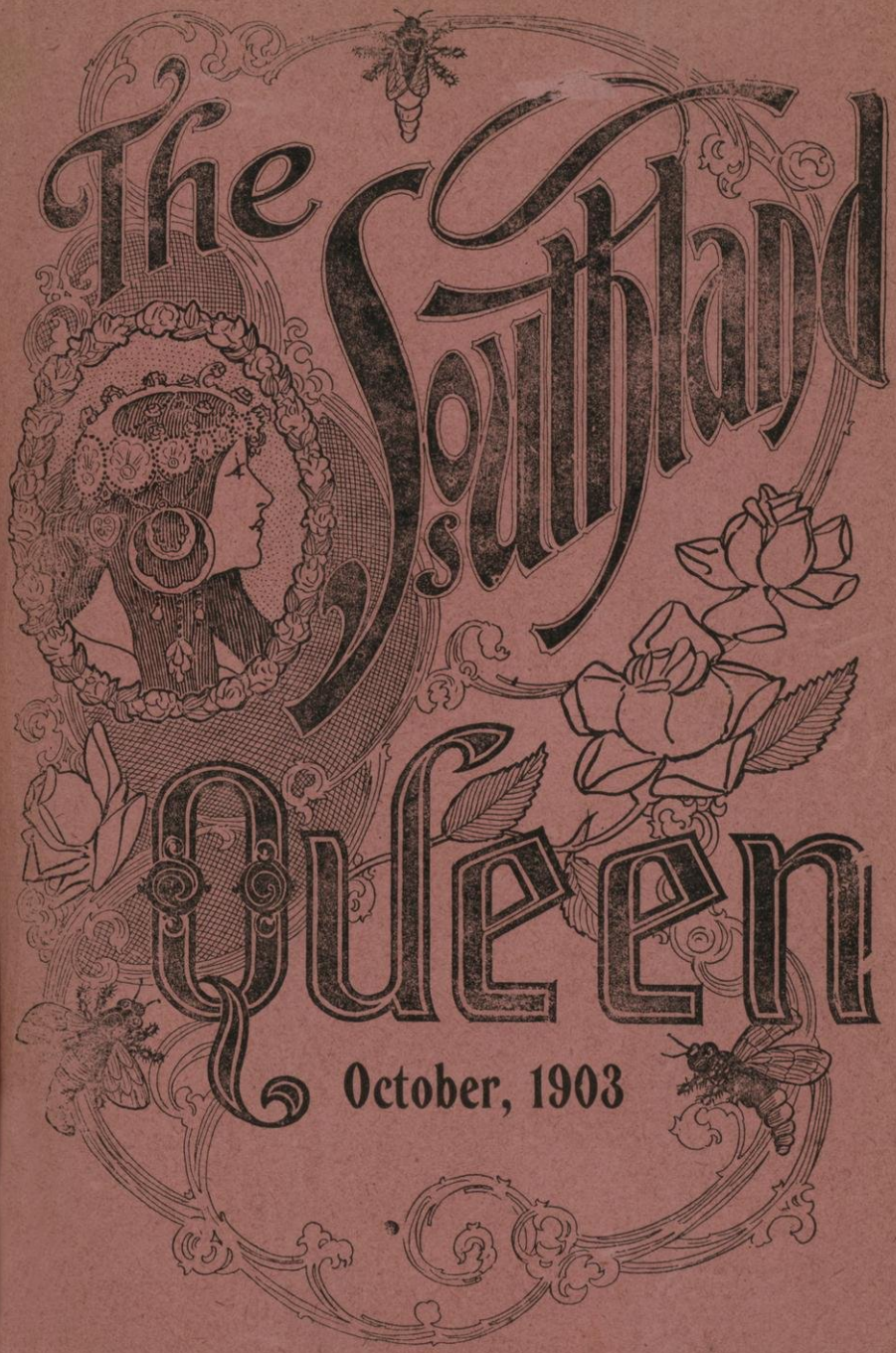
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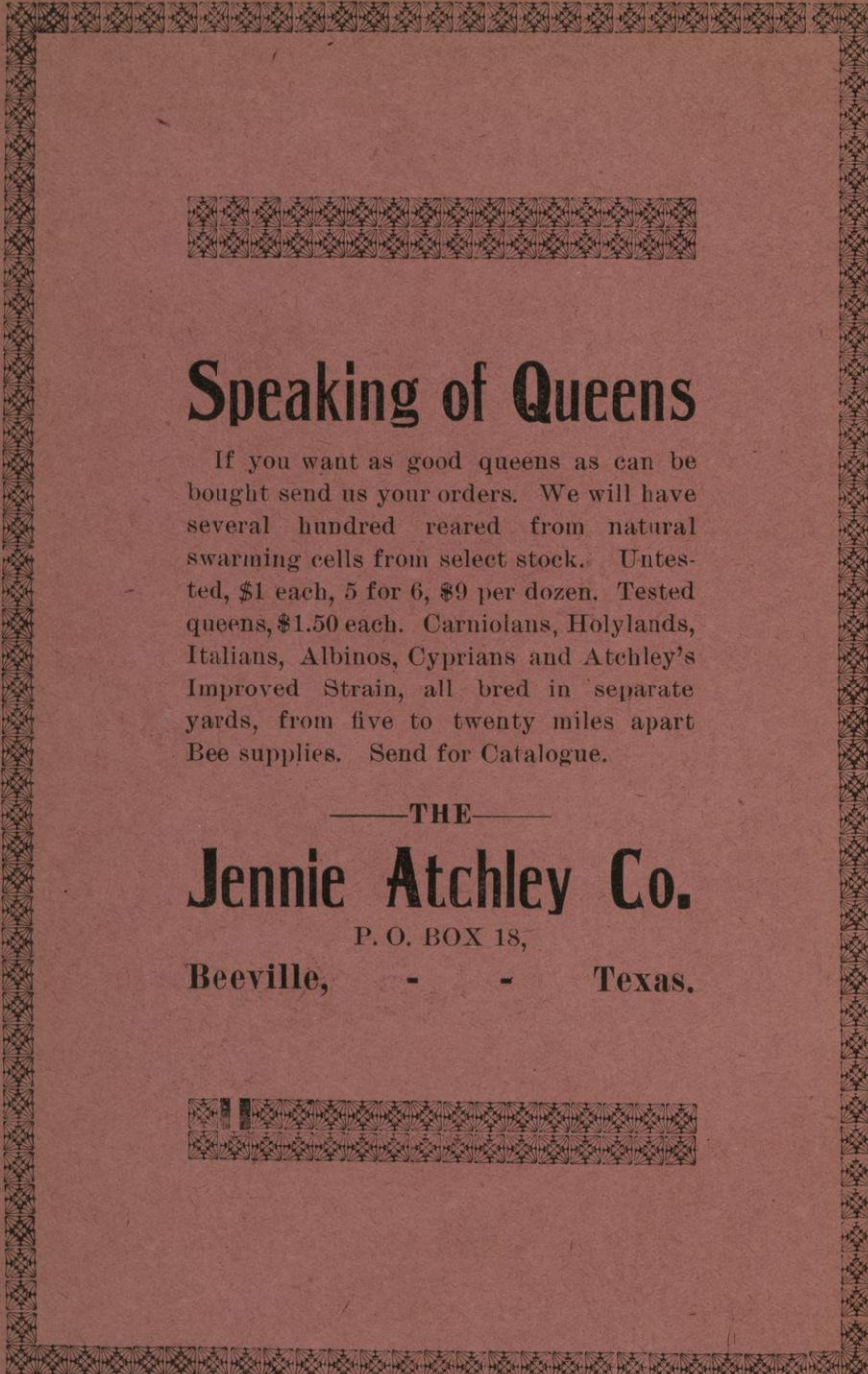


The Saturday



Queen

October, 1903



Speaking of Queens

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P. O. BOX 18,

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Volume 1.

Number 7.

The Southland Queen

DEVOTED TO THE EXCHANGE OF THOUGHTS
ON APICULTURE.

Published Monthly.

\$1 Per Annum.

BEEVILLE, TEXAS, OCTOBER, 1903.

Review of Experimental Work at College Station.

J. E. CHAMBERS.

Along the lines of experimental work and investigation laid out for another year by the apiarist and authorities in charge at College Station, I think there are some items of especial value and importance, among them the comparison of hives, and construction of improved and special hives, is, I consider, one of far-reaching importance. Not alone from the standpoint of those among us who do not believe that the present so-called standard hive is a standard of excellence or a standard of anything but bunglesome inside furniture, unyieldy frames and warping covers, to say nothing of many other defects. These tests and comparisons are likely to show that a more simple, inexpensive and effective hive can be constructed, for it is self-evident to any but the dullest that the twentieth century hive has not yet been produced, and that the highest aspi-

rations of the expert apiarist can not be realized, nor the greatest possibilities of the pursuit attained with present styles of hives. To admit that we can do no better is to put a brand on our intelligence. I, for one, am struggling for a better and more advanced hive.

Comparison of methods of management is also an idea of broad scope and unlimited possibilities. To my mind there are a few questions of such vital importance to the entire bee-keeping world, as the proper management of apiaries at all seasons of the year, and though any solution of this question must be in its nature and application more local than general, yet I cannot help believing that these comparisons are along the true lines of advancement, and will result in the adoption of better and more up-to-date methods of management generally. However, it is to be hoped that the methods to be compared will be those of up-to-date, practical honey producers rather than the high-

spun theories of men who write for others to read

Comparison of races of bees is another field broad and fertile of possibilities, and it is to be hoped that these experiments will include all of the crosses that give any promise of value, and along these lines it might be advisable to secure what data and information is available from the practical honey-producers who have been using the several crosses spoken of. This, too, is a question in which locality plays a great and varying part, and races or crosses of value in one part would perhaps not be equally valuable in all parts. Nevertheless, I believe there are great possibilities in this direction.

Comparison and tests of methods for the prevention of swarming is a subject that promises to give friend Scholl and his staff a good deal to do, but he is young and energetic, and we hope will get there with some non-swarming plan that will prove capable of practical application. In so far as the mere successful prevention of swarming is concerned it is possible of a solution I am sure, but whether the amount of work and time required does not more than counterbalance the gain thereby made is the question in this connection. I must admit that I am yet undecided as to whether prevention of swarming is the great desiderata some

seem to think. My experience is unusual, in that it seems to point to the conclusion that swarming is in the main but little worse than prevention, unless the advantages of requeening can be secured at the time of doing the prevention act, in which case the two good things more than counterbalance the one bad thing.

Methods of running out yards I consider of absorbing interest and value, but altogether impractical of general solution from the fact that locality is an ever present factor that must be considered. Even the ever changing conditions of any given locality have made it impossible for me to follow a given or set method every year without great loss. I do not argue from this that others may not be able to do so, but simply that I have not succeeded. However, I think there is a chance of some good coming from investigation along this line.

The experiments made the past year in bottling honey were interesting to me, and I shall watch all future work in this direction with increasing interest, as I firmly believe in the future of honey put up in that way. For some time past I have put up a good amount of honey in glass, and have found an appreciative and increasing demand. Up to the present I have used no special utensils or apparatus for the work, but believe that with a proper and scientific

knowledge of the best method to be used, a great trade can be built up in any good town. One thing I have learned about it is that nothing but strictly first-class honey should ever be put up in glass, extreme care and cleanliness must be observed, the package must be of a size to suit the requirements of the trade and be neatly labeled.

The manufacture of vinegar from waste and from cappings is a matter of some interest, especially to those who do much extracting. In this locality good honey vinegar is worth 35 cents, and I figure that my waste and cappings would make at least 200 gallons, allowing two pounds of honey to the gallon, which would be a considerable item, well worth saving. However, the tests proposed are just the thing to bring out the best methods and demonstrate the possibilities of such work.

Planting and trying honey plants is of considerable interest, because if exhaustively carried out it will satisfy those of us who are skeptical about its particular value, and will also afford an opportunity for the other side to learn something of real or supposed value. However, I am always an optimist in regard to bees or kindred subjects, and hope that planting the hardy trees and shrubs indigenous to parts of the United States similar to our own in climate, soil, seasons,

etc., will in time be proven a success, and aid greatly in piecing out a honey crop.

The police work spoken of by Prof. Sanderson—I can not agree with him in the belief that the foul brood law is at all efficient, or that it covers the ground, rather its chief virtue lays in its extreme weakness, which is calling attention to the need of an efficient law, providing stringent penalties for its violation and ample means for its enforcement. The present law makes no provisions for either and is, I consider, next to no law at all. Its authors, I am sure, intended well, but as a legislative act it was a tremendous blunder, nothing more. I am sorry to have to say so, but truth compels the statement.

Neither can I believe with Prof. Sanderson that local or county associations of farmers' institutes can do much towards discovering diseased bees, or securing their proper treatment, for such work requires extreme skill and care, coupled with a perfect knowledge of the nature of foul brood. I know this from experience, having treated and cured a good many cases among my own bees, and bees that I have bought from time to time. I have found this disease where and whenever I have had a chance to examine apiaries, all over this country, and not one of the owners could be brought to believe that

anything was wrong, and I very much doubt if one so-called expert in twenty would know it from any other dead brood, and I know not one farmer in five hundred would. I would not wish to risk any but the best and most thoroughly informed to treat this dangerous and stubborn disease, for one bungler can spread it faster than forty experts can eradicate. I know it is all easy enough for me to cure every case, for I know the value of extreme care, of isolation and disinfection of hives and tools, as well as clothing, but how many does, tell me.

I think Prof. Sanderson struck the nail on the head in saying Texas bee-keeping is much like the live stock industry with the long-horned steer—large quantity and little quality, and I attribute that fact mainly to this very cause. There are too many farmer bee-keepers, men who do not care enough about bees to thoroughly learn the science of bee-keeping, for I maintain that it is a science when rightly understood, and others who are engaged in some business that they love better, and only keep bees as a side issue. This class of bee-keepers neglect their bees, allow them to run down and become diseased, and finally die out. They cut out a few chunks of pollen and young bees and call it honey, and the customer who has eaten this kind of honey once

has forever after a bad taste in his mouth when honey is mentioned. I know a good many of this class, and they are a mangy, disgusting lot. Of course there are exceptions, but not many. I may say that I am a firm believer in the declaration that you cannot serve both God and Mammon, and I emphatically do not believe in too many Gods or too many pursuits.

Teachers Wanted.

We need at once a few more teachers for fall schools. Good positions are being filled daily by us. We are receiving more calls this year than ever before. Teachers free of cost. Enclose stamp for reply.

AMERICAN TEACHERS' AS'N,

J. L. GRAHAM, LL. D., M'g'r.
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phis, Tenn.

SHAKEN SWARMS FIFTY YEARS OLD.

Is Not Father Langstroth the Originator of the Forced-Swarm Method?

D. C. L. IN GLEANINGS.

I have been so situated that for months past I have read none of the bee papers. I now have before me *Gleanings* for November 1, in which I find several references to "forced" or "brushed" swarms, and an article of some length by Mr. Stachelhausen on the same subject. Some question seems to have arisen as to who is "the author of

the brushed or shook swarm method," and an editorial note appended to Mr. Stachelhausen's article gives him the credit, as he has practiced it for over twenty years.

Now, if I am not greatly mistaken, Mr. Langstroth practiced substantially the same method more than forty years ago. I have before me his book published in 1862, in which he devotes several pages of the tenth chapter to "Artificial Swarming." Beginning on page 154 he describes at length his method of forming forced swarms. Is it not a fact that father Langstroth is entitled to the honor of introducing the system?

Springfield, Mo.

[You are right. In the chapter on artificial swarming Mr. Langstroth does describe a method of "forced swarming" very similar in many of its details to the plans we have been lately advocating. He goes on to say how unsatisfactory mere dividing is to secure the results obtained from natural swarming; all plans of artificial swarming he condemns save one, which he calls "forced swarming." He directs that the operation be performed at the beginning of or just before the swarming season. The parent hive is to be removed from its stand, and an empty one or a decoy hive put in its place about ten o'clock in the morning,

when the bees are flying thickest. The old hive removed is turned upside down, and the bees from it are drummed up into a box. This is then set down on a temporary stand. The old hive is put back on its old stand to catch the flying bees, and the bees in the decoy hive which had been on the old stand. It is then removed to another stand, when the hive or box with the drummed out bees is put back on the old hive stand. Just why Langstroth recommended so much unnecessary manipulation is not explained, any more than that, in his opinion, field bees were necessary to take care of the brood from the parent hive. Perhaps this may be sufficient explanation; but ordinarily we would not suppose field bees were just the ones for this kind of work. Had he recommended, as he suggests further on in the chapter, removing the old hive, shaking the bees in the morning, and getting nearly all the bees in a new hive on the old stand, his plan would have been virtually the same as the shaken-out plan of to-day; at all events, we have Langstroth endorsing the basic principle of the shake-swarm plan now in vogue, and condemning the plan of artificial increase by a mere dividing.

It is remarkable how Langstroth antedated so many of us in our new (?) discoveries. This is not the first time we have re invented

some methods found in his book. While it is possible that a novice taking up his work and reading his methods of "forced swarming" would fail to get the real essence of the plan now in vogue, yet there is no denying that he had the idea, and I believe that it is no more than right that we accord to him the palm of original discovery of "forced swarming." When I say "forced swarming," he used exactly that term in the first edition of his book away back in 1852 and 1857. We thought we were new in adopting this name; but here again Langstroth was ahead of us. Nothing but consummate genius could have cut the ground clean out from under us fifty years before in so many things as is done by the father of American bee-keeping. Well does he deserve the title that has been so justly applied to him.—Ed.]

[I would like to know what there is that is new in bee-keeping since Mr. Langstroth discovered the movable comb hive and frame. The point is this, literally speaking—there are but few real original, new ideas now in general practice that were not taught by our old pioneer, L. L. Langstroth, the father of modern bee-keeping.—Ed.]

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 special 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.

SIFTED SWARMS.

Don't Let Your Bees Get Into a Mix-Up.

T. J. ADAMS IN GLEANINGS.

On page 288, April 1, Wm. McEvoy gives his way of preventing a mix-up when queens are clipped. When queens are not clipped how shall we prevent it? With 300 colonies in a space 65 by 75 feet, and not a queen clipped, we succeed fairly well as follows: close the hive tight as soon as the swarm begins to issue. At the end of five minutes let out a dozen or two bees, one at a time. If they take wing close the hive for five minutes more. A strong colony might smother if confined longer. It may be necessary to repeat this several times, or until they do not take wing when let out, but walk up the front of the hive, buzzing and fanning, then open the hive.

They are then cured of the swarming fever. Give the bees room, and the result will be satisfactory. I think they kill the old queen, and her place is soon filled by a young one, which is usually a profitable exchange. If increase is wanted take one or two combs of hatching brood with a few bees and a good queen-cell and a comb of honey to form a nucleus.

Sometimes we wish to save the queen, or the queen may be out before we see the swarm issuing. We then take two empty hive bodies, two queen-excluding honey boards and the smoker to where the swarm clusters. Put one honey board between the empty hive bodies, and the other on top for a lid, and raise one end of the lower hive for ventilation. Shake the cluster into the upper hive body, or, if more convenient, shake into a large pan or other light vessel, and carry to the hive, always carefully covering with the honey-board as soon as part or all the bees are emptied in. When all are in a few good puffs of smoke given through this honey-board cover will drive the bees into the lower hive. The queen will be in the upper hive between the honey boards. Carry her away, first jarring the bees off that are clustered under the lower honey-board. The queen is now very easily found. Kill her or form a nucleus with her as above. To find which

hive the swarm came from smoke and scatter the bees in the lower hive body. Unless a virgin queen goes out with the swarm they will return and cover the front of their hive. Our colonies are strong in two-story ten-frame hives or three story eight-frame hives. We have never been troubled with second or after swarms when all the bees were returned to the old hive; and by giving room they always do better with me than when allowed to swarm.

To tell how takes much more time than to do the work. I have screened two large swarms in five minutes, using the same hives and honey-boards for both.

I used to dread the swarming time, but now my mind is at rest, for in my apiary I am master of the situation when there is no virgin queen with the swarm. Possibly there might be after-swarms in some localities, but I do not have them.

Russell, Ala.

Alfalfa Clover Irrigation.

We seldom pick up a newspaper without noticing the mention of big irrigation plants being put into operation along the rivers and water courses of Texas, and if these irrigation plantations sow alfalfa, which they will do, then Texas bee-keepers will have a double chance for honey. Those

large rice plants along the Rio Grande River will sow alfalfa, and it furnishes honey in these southern localities, which no doubt it will, then it is only a question of a few years when Texas will double her output of honey. One thing may be in the way, and that is—will alfalfa bloom at the same time as guilla or catclaw, or other south Texas honey plants. I would like to hear from bee-keepers living near alfalfa fields as to what time it blooms, and any other information regarding it. Give information through the Queen. Alfalfa grown under irrigation in this southern country could be cut at least three times a year, and may be it would bloom as many times; if so, some one of the bloomings would come when we have no other honey flowers blooming. That country lying between Brownsville and Laredo, along the river, will be a fine place to try alfalfa, and I think bees do well along this territory. I think it has been suggested that any sowing of plants for bees in Texas was a failure, but the growing of alfalfa could not be called sowing for bees alone, as the hay will pay well, good alfalfa hay selling for \$10 per ton or more, and two tons per acre each cutting would be a profitable yield, and the honey would be extra. A territory with 100 to 200 acres of alfalfa in reach of the bees would likely be sufficient for

an apiary of 100 colonies. In fact it would be an item of great interest to get an estimate based on experience as to how many colonies of bees an acre of alfalfa clover would support or furnish honey sufficient for a surplus. This information would be interesting concerning any honey plants, but as wild or natural plants seldom set as evenly, or as thick as if sown by man, it would be much harder, of course, to reach any degree of certainty with wild forage, while alfalfa would be easily tested. With the rapid progress of apiculture in the south these things should receive close and careful attention, and ought to be kept up with bee-keeping strides. Marching along in everything at the same time will be the means of keeping the pursuit in a healthy condition. Who will tell us about growing alfalfa in the south, more especially in the irrigated districts of Texas.

OLD FOGY.

Professor W. M. Gray, of Orchard, Texas; Dr. C. S. Phillips, Waco, Texas, and W. C. Nutt, of Eldorado, Iowa, are coming to cast their lots with us as bee-keepers. We welcome these brothers, as I know them all to be good people. Dr. Phillips is here now looking out a location, Mr. Gray came last month, and Mr. Nutt is coming without looking out a location.

THE SOUTHLAND QUEEN.

PUBLISHED MONTHLY.

E. J. ATCHLEY - - Editor and Publisher.

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

BEEVILLE, TEX., OCTOBER, 1903.

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The bees that seemed to have a disease last summer are all right now, and I hope we will not have any more of it.

This, October 8th, bees are working nicely on broom weeds, and if the weather is favorable through October and November our bees ought to fill up pretty well.

I have been trying since the Queen started to get pound rates for mailing, but up to date have failed. The postoffice department at Washington call the paper a "house organ," or a catalogue, and say it is not eligible to pound rates of mailing. I can not see why the

Queen is any more a house organ than our other bee-papers. Still the department have their own way about it. If I do not succeed in getting the Queen in as second-class matter I may have to discontinue publication, as it would not seem fair to have to mail at first-class postage rate when all the others are admitted as second-class matter—then it would cost too much to pay postage, as each issue of 1000 copies, more or less, would cost \$1 per hundred copies each month, when 25 cents per 100 would mail it at second-class rates.

I have heard that we are to have another bee-hive factory at Beeville, which, if true, ought to give bee-keepers a chance for the lowest prices, and may help out in furnishing plenty of supplies at the proper time. Competition, it is said, is the life of trade.

The balance of the proceedings of the College Station meeting are in the hands of parties that have not sent them in; so Mr. Scholl says, and that he will send them in when he gets them.

Our bees are now quiet, gathering some honey, and we are not bothering them now, but are turning our attention to building telephone lines, now working on a twenty-mile line, reaching to the south portion of Live Oak county.

The editor has been a victim of chills and fever lately, so has the printer and his family, and we just had to delay the Queen because we were not physically able to get her out. The past wet season has caused more sickness than has been known for many years in this section.

We learn that yellow fever is within forty or fifty miles of us, but we trust that the strict quarantine will keep it out. It would prove bad on us bee-keepers as well as others for yellow jack to break out among us.

Remember the bee-meeting, December 15th, and the place, at one of our apiaries twenty miles west of Beeville. Come to Beeville on the 13th, so you can get free transportation to the grounds on the 14th.

It is somewhat amusing as well as detrimental to the bee industry of this entire section the way the sales of honey have been conducted the past two seasons. One firm wrote me that they had undertaken to put the prices of honey up, but they failed, and now lay the blame to the bee-keepers, saying they would not stick to them. Some people, it seems, cannot see very far beyond their noses, as trying to put the price of honey up above where it ought to be lay the gap wide open for other countries to

take our honey trade in one season, when it has taken years to build it up. The honey was bought by the firm, who undertook the corner business and paid full wholesale prices for the honey, and while the early portion of the crop went off nicely at a fair profit, the bulk of the crop did not go, and the wholesale grocers found cheaper honey and availed the opportunity, which was right, and bought sufficient for their trade at a much lower price. I wrote one large wholesale house that I had some honey to offer, and would appreciate their offer at 9 cents per pound for bulk comb honey in 2-60's, and their reply was, "Thank you, but we are getting California honey laid down for 2 cents less, and the honey is as good as South Texas honey." This I know to be so, as I had been offered the same, a fine quality of extracted white sage for 5½ cents per pound laid down in carlots. I have been watching this thing for more than ten years, and this season realized in the fullest sense my predictions of five years ago, which was that somebody would try to corner the honey market and let in foreign honey and take our trade. I, for one, wish for bee-keepers a high price for honey, but we must look sharp to competition, for it will never do for us to imagine that we have all the honey there is in the United States, but rather that we only

have a drop in the bucket towards it. The product from this section had gained prominence over every other honey until the high prices cut it out, and it will be no surprise to me if Cuba, Mexico and California do not gain and hold our trade, and we will have to sell low down for some time to come to gain our lost grounds. Even Uvalde county and territory produce about one million pounds, according to current reports, while in this section we produce half as much. That section has already shipped about 800,000 pounds, and at prices ranging from $\frac{1}{2}$ c to 1 c a pound less than our honey was offered; hence they move stocks while we warehouse ours. It now remains for us to regain our trade or sell our bees, which ever we can do to best advantage. One of my neighbors told me that he this season spent \$75 traveling to hunt a market for his honey, and came home to ship, when another neighbor bee-keeper found out his markets, offered his honey for less and took his well earned trade, which was wrong, but the whole thing came about by the corner which was tried this and last year. The people who undertook the corner are good folks, but tried to spread too wide and let the eggs spoil. Don't ever mention that Cuban or Mexican honey will ever be brought in competition with ours, as such things will ultimately bring our

extracted product down to 4 cents, or about 50 cents per gallon, and bulk comb to 6 cents wholesale, and hold there or about that mark. Once foreign honey begins to come in it may never stop, but finally absorb our markets. This is no blind assertion, as the same holds good and has been proven, by all farm products, and we must watch our P's and Q's, or soon we will be out of business. Now let each and every bee-keeper sell his product, as far as possible, and let supply and demand rule prices from this time on, which will keep the pursuit healthy, and of course fair prices will be the result. Allow me to repeat again, don't contract your honey, but sell to the best advantage for cash on the spot and be happy.

Preparing Bees for Winter in the South.

It has been said that there is nothing to be done to prepare bees for winter in the South, but it is very essential, in my opinion, that bees be properly prepared for winter, in southern localities as well as in northern countries. I have noticed that colonies that do not have an abundance of honey usually drag behind and do not get in shape for early honey flows, while those with a full supply of stores are ready to catch the first honey that appears in early spring, and

this early start makes the returns greater as a whole throughout the season. Taking this as true, which it undoubtedly is, then one part of the preparation of bees for winter in the south is plenty of honey, say twenty-five to thirty pounds per colony on December 1, and then there will be but little more work to look after them, only to be sure that supers are ready at the right time to receive the early honey flows. Another thing to be considered is the importance of good, thrifty queens for each colony. This, of course, ought to be attended to before bees stop breeding in the fall, and any queens that do not show to be all right ought to be replaced before the fall work among the apiaries is finished, so that all colonies can have an equal show for a large force of workers early in the spring. When good queens and plenty of honey are provided means a crop of honey half earned the next spring. I have often heard farmers remark that land well plowed and put in good shape for planting in the fall meant a crop half made the following spring, and I feel sure that the same holds good with bee-keepers of the south, and careful attention as to good queens, plenty of honey, dry and comfortable hives, all done before winter sets in, is a long step towards next year's crop. My notion is that there is a great blun-

der made by many bee-keepers in taking their honey too close at harvest time. The old adage that I will take all the honey from above and leave that which is in the brood chambers, is a bad one, as some bees store all their honey above and scarcely deposit enough below to feed the hatching bees, and when all is taken from above and no attention paid to stores below, the bees may be left in a destitute condition right at the close of the last flow, and the result is such colonies either starve or worry along, barely living, pulling through with a mere hand full of bees, and do not pay the owner much, or at least miss all the early white honey. In conclusion allow me to say that to prepare bees for winter in the south, let them have plenty honey to back them up.

A BEE KEEPER.

Apiculture as a Profession.

L. B. SMITH.

I am often asked by those not well versed in apiculture if I would advise them to take it up as a business or profession. For those who are interested or care for my opinion in the matter I will say this: You might as well ask a man if he thought you would succeed in any kind of business. I know of no kind of business that requires more thought and study than apiculture, and I know of no

business that requires any more good common sense to be used than does apiculture. But for the encouragement of those interested I will say that it requires very little capital to start on a small scale, and that is the only way I would advise the inexperienced to start. First see if the business suits you and you suit it. If you are too stingy to subscribe for the Southland Queen and cannot afford an extra dollar or two for some good text-book on apiculture, then I would say go slow. I have yet to see a successful bee-keeper who did not read one or more of our leading bee journals. I know of no better investment for the novice than to send the editor of the Queen one dollar for a year's subscription. It is our paper and is suited to our business, and will be just what we make it. The editor and most of the contributors will be ready at any time to help the novice who is trying to help himself. I will now give a few of my ideas as to what it will require to make a first-class bee-keeper.

First, a real love for the business. Second, one that is not easily discouraged. Third, one that is willing to work and do the right thing at the right time. A successful bee-keeper can not be a careless, reckless go easy fellow. He must be quick to observe and ready to act on short notice. Fourth. He should be a person of

self-confidence, but not too much so, that he is not willing to learn from others. Here is where a great many fail. They will learn a little about the business from reading a newspaper or some old out of date books, and rush wildly into bee-keeping—try to invent a hive or frame or get a patent on a moth trap, only to find after they have spent much time and perhaps some money, that their invention was no good, and that no practical bee-keeper would have it as a gift. Fifth. One should have a love for the business outside of the money there is in it. If one starts just for the money he expects to get out of it, nine out of ten will fail. Now, Mr. Novice, if you possess the above qualities send in your dollar for the Southland Queen, and I assure you that with its help you will succeed.

Rescue, Texas.

Additional Editorials.

It is not too late yet for swarms, for on the morning of October 11 we had a swarm here at one of our river bee ranches, a big boy. Leah, one of our bee girls, now Mrs. B. H. Stanley, gave birth to a new bee-keeper, and both mother and child are doing well at this writing, October 17th.

We have just had a fine fall rain, cool nights and warm days, and while I sit leaning against a

bee-hive writing this I can smell the broom weed honey as the bees pass over and around me. With favorable weather now our strong colonies will fill up well for winter.

On our way up to this river ranch last week we stopped our teams to rest a few minutes. I stepped out into the woods a few paces and found a fine bee tree, and they were working like Turks. While the other part of the crew rested I rested by finding a bee tree, as they say I never rest, anyway. A few days later three of us went up the river, taking a boat ride, and I espied a single bee irrigating herself right at the water's edge, and we landed, and in ten minutes I found them working strong in a small elm tree near the bank of the Nueces river. Then two days later, while the boys hitched up the teams I found a nice bee tree, and yesterday the boys found one, and no time lost in hunting bee trees, either, so we will take a day off some of these times and cut bee trees, as I had a number found before this.

Willie Atchley has gone north this month with a large lot of honey, which he expects to sell before he returns. It does not stall him for a honey market to get a little dull, as he and his father have peddled honey in Texas for more than twenty years, having

sold about four car loads in one winter. It takes a little more effort, but after all the one to two cents per pound more pays to sell to consumers, if one can only find the time to do the work



I can have my bees ready to move by November 1. Would that be too early to start south with them? Which is best for brood chambers medium or light foundation? For surplus would you use thin or extra thin foundation. Would you use full sheets of foundation or only starters. Give me your best method for preparing bees to ship, and would they need water on the way. W. C. NUTT.

Eldora, Iowa.

November 1 will be all right to ship bees south, as by that time you have had frost and cool weather in your locality, and no brood will be in the way. If you meet warm weather on the way you can have a barrel of water in the car and sprinkle the hives well during the hottest part of the warm days and the bees will not suffer. I use light brood foundation for brood chambers, as medium or heavy is too much wax for me, and really anything heavier than what is classed as light brood is wasted and in the way. For supers I use light or what is called thin surplus, as the extra thin is too delicate and too much liable to

damage in using and handling. I only use starters in supers and full sheets in brood chambers when I have plenty and the season or present circumstances demand it, and when I am short I use half sheets and starters in brood frames also. The best way to prepare bees to move in car loads is to tack them up snugly and ventilate well over entrances, and if they need it, according to the strength of colonies, upper ventilation also. Some colonies may need twice as much ventilation as others. Place the hives in the car so that the frames will run lengthwise of the cars so that the stopping and starting will not have a tendency to flop the frames and mash bees. For a wagon the hives ought to be loaded the other way. The bees will only need water as stated above. If you have a careful and thoughtful person with the bees your loss should be light if you have put them up in good order.

What month is best to move bees? My bees come in with white stuff on both legs—what is it? Can you see the honey as the bees bring it in, and where do they carry it? HERALD MCE. BRUNDRETT.

Dallas, Texas.

Friend B.—The best time to move bees is after a cool spell and breeding has stopped. It is owing to how far you have them to move as to how they ought to be put up, etc., but any time after frost you can move them all right by closing

the entrances with wire cloth and making the balance of your hives bee tight. The substance you mention that bees are bringing in is pollen, and is used to rear brood with. You can not see the honey as the bees bring it in, as it is hidden from view, being in a sac inside the body of the bee. There is a small clear bladder or sac situated in the body of the bee in that portion known as the "hinder part," which has a connection with the long tongue of the bee. There is no outlet backward to this honey bladder, but the honey water, or whatever is carried in it, must be drawn out through the same orifice as it passed in, and consequently the honey gathered by bees is just as clean and free from any kind of dirt or unclean thing as clear spring water. The honey eaten by bees and taken into the intestines is gone, and is used the same as food of other living things, and never deposited in the cells. This explanation is for the inexperienced, and those that might be timid toward eating honey.

Mr. Root refers me to you for some information about Cyprian bees. The literature on the Cyprians seems to be very scarce, indeed. However, from what I can gather, they are decidedly the best producers of extracted honey; filling their cells a little too near the cap causes the honey in them to look a little darker than that capped by Italian bees. As I am interested only in extracted honey the ap-

pearance would not concern me. It seems that the great difficulty in keeping the Cyprians lies in understanding and managing them. Would not the same care and quietness in handling Italians be sufficient to control the Cyprians? Have they any peculiarities not possessed by the Italians? Frankly, what is your opinion of the Cyprians as compared with the Italians? I would like for you to write me at length and send me any literature on the Cyprians which you may have. Thanking you in advance for your requested kindness, I am yours truly,

W. S. ASKEW.

Warthen, Ga.

Friend Askew.—You will note reply to Mr. Furbee in School this issue almost covers the questions you ask, but in addition to what I have said about Cyprians, will add that they do fill the cells chuck full of honey, and this makes the comb honey look a little watery, or the color of the honey itself, but really, the comb honey is beautiful and has a much richer appearance than honey put up by blacks, Italians or Carniolans. My customers prefer it, as it only takes a little common sense explanation to get honey consumers to see that the honey is practically the same, only the Cyprian and Holyland comb honey will weigh a little more per square inch than that made by other bees, and this could be no objection. Yes, if you will use care and great caution you can handle Cyprians just as well as Italians after you become acquainted with them. My Cyprians are as easily handled as Italians,

especially when honey is coming in, and when no honey is to be had, Italians or any other bees for that matter are harder to handle, but even then if you will be quiet and careful you can manipulate all that is necessary with but few stings, as at such times there is but little to do to them only to let them alone. Should at any time feeding have to be resorted to it can be done the same as with other bees, and after sizing things up all around, I can not see why Cyprians are not as easily managed as Italians.

—
Please give me some particulars about the Cyprian bees, as the queens I received seem small, but otherwise O. K.

H. B. FURBEE.

Norman, O. T., September 21.

Friend F.—The Cyprian bees are much like the Italians in appearance, only they are a little shorter and thicker than Italians. The bands and markings are also a little different, and the broad bands are somewhat of a reddish hue. They are active comb builders and the queens are very prolific, and all in all they are a very fine bee, both for comb and extracted honey, but at certain seasons of the year they are crosser than Italians, and fight like tigers, and unless you understand how to manage them better let them alone only when honey is coming in, then they are easy to work with.

I am raising queens from my best queen to requeen twenty-five colonies. I am doing it as follows: All my bees are in two-story hives. I divide my best colonies, giving eggs and brood to the one without a queen, and I have several fine cells started. I commenced on the 12th, so on the 27th the cells will hatch. What I want to know is this: Will it do three days before they are due to hatch to dequeen the colonies I want to requeen and in six hours introduce the cells? Would they receive them, and would they build cells on their own comb? If they had started cells would they destroy them when my queen hatched out? Please answer as soon as possible.

DR. C. S. PHILLIPS.

Waco, Texas.

Doctor.—You had better wait longer than six hours before inserting cells into colonies that have been no longer queenless than that, as the chances are the bees will tear most of them down. If you mean to dequeen three days before your cells hatch and to insert cells six hours before hatching it will be all right. The bees would likely start cells over their own brood, but as soon as the cell hatches the virgin queen will tear them down, or at least she will do so after the cells are sealed. The bees will also stop building cells as soon as your queen hatches. At this season of the year there will be but little danger of swarming, so you can depend upon the virgin to make clean work of tearing down the cells. Your plan is O. K. for requeening, and you only have to watch out for those that miss queens, and help them provide another queen, etc.

Answer to J. E. Chambers.

In the September Queen (p. 145) I see Mr. J. E. Chambers cuts the bee editors right and left. I would say with Mr. C. that I would not like to be a bee editor. When Mr. Chambers asserts that no one but a fool will use wire in brood frames, then there is a big lot of us fools, and if Mr. Smart will convince us that it is not at all necessary to use wire in brood frames we will knock the cap from our bumfuzzled cranium and take out that wire pulling and insert instead his no-wire idea, and proceed to the nearest tinner and have him solder back tight and fast the cap to our brains so such an idea never can escape, as it would be a great saving for us to know how to get along without wiring combs in a hot state like Georgia. Why? Combs without wire will break out and ruin enough in one season to buy and pay for wire, time, etc., to justify a bee-keeper to put in half of his time in wiring frames. Then you cannot haul or ship bees, nor handle them in any way with any degree of success unless the combs are wired. Just think of extracting along through the yards and hearing the one using the extractor saying hard Sunday school words, and the amount of work to patch up and fix the broken combs. I, for one, would rather pitch such combs into the wax extractor, as

it is nothing but a bad mess, a loss, a bother, a nuisance, a mistake and a lack of judgment, and the one that uses combs without wiring will always come up behind in bee-keeping. GEORGIA.

Can the Now-a-Day's Hive Be Improved?

R. NASH IN AUSTRALASIAN BEE-KEEPER.

In reply to your correspondent, G. Hollis, who asks, can the now-a-days hive be improved, I submit the following conditions which I think would be essential in a perfect hive:

A complete hive should give the apiarist such perfect control of all the combs that they may be easily taken out without needlessly interfering with the ordinary working of the hive or enraging the bees.

It should permit all necessary operations to be performed without hurting or killing a single bee.

It should afford suitable protection against extremes of heat and cold, sudden changes of temperature and the injuring effects of dampness. The interior of a hive should be dry in winter and free in summer from a pent and almost suffocating heat.

It should require not one unnecessary motion of a single bee.

It should afford suitable facilities for inspecting the interior at all times to ascertain the condition of the bees.

It should be capable of being readily adjustable to the wants of either large or small colonies

It should allow the combs to be removed without any jarring.

It should allow every good piece of comb to be given to the bees instead of being rendered into wax.

It should induce the bees to build regular combs.

It should facilitate the building of worker in preference to drone cells in the brood nest.

It should allow the furnishing of empty combs to induce the bees to occupy more readily the supers.

It should enable the apiarist, in the case of over-production of drones, to entrap and destroy what are not required for the purpose of fertilizing the queens.

It should enable the apiarist to remove such combs as are too old.

It should afford all possible protection against the ravages of the bee-moth and other enemies of the bees.

It should furnish some accessible place for the larva of the bee moth to weave their cocoons and so facilitate their easy removal.

The bottom board should slant towards the entrance to facilitate the carrying out of dead bees and other useless substances, to aid a colony in protecting itself against robbers, and to carry off moisture, as well as to prevent rain from beating into the hive.

It should afford facilities for feeding bees both in warm and cool weather.

It should admit the safe transportation of the hive to any distance whatever.

It should permit the easy hiving of a swarm without injuring any of the bees or risking the destruction of the queen.

It should furnish the bees with air when the entrance from any cause should become completely blocked.

It should enable the apiarist to remove the excess of bee-bread from old stocks.

It should permit the safe and easy dislodgment of the bees from the hive. This is especially important when it becomes necessary to break up weak stocks to join them to others.

It should allow the bees, together with the heat and odor of the main hive to pass and circulate in the freest manner through the supers so as to facilitate comb-building.

It should permit the surplus honey to be taken away in the most convenient, beautiful and salable form, and without risk of annoyance from the bees.

When quantity and not quality is what is required it should allow the greatest yield, that the surplus of strong colonies may be given in the fall to those which have an insufficient supply.

It should enable the apiarist to compel the force of a colony to be directed towards the raising of brood, that the brood may be on hand to form new colonies and strengthen feeble stocks.

It ought to be so constructed that while well protected from the weather, the sun may be allowed in early spring to encourage breeding by warming up the hive.

The hive should be equally well adapted for use as a non-swarmer or as a swarmer.

It should enable the apiarist to prevent a new swarm from forsaking its hive.

It should enable the apiarist, if he allows his bees to swarm and wishes to procure surplus honey, to prevent their swarming more than once in a season.

It should enable the apiarist who relies on natural swarming, and wishes to multiply his colonies as fast as possible, to make vigorous stocks of all his small after-swarms. Such swarms contain a young queen, and if they can be strengthened, usually make the best for stock purposes.

It should enable the apiarist to multiply his colonies with a certainty and rapidity which is impossible if he depends solely on natural swarming.

It should enable the apiarist to supply destitute colonies with the means of obtaining a new queen.

It should enable him to catch

the queen readily for any purpose, especially to remove an old one whose fertility is impaired by age.

All the joints of a hive should be water tight.

It should enable the apiarist to entirely dispense with sheds or costly apiaries, as the hive itself should alike defy heat or cold or rain or snow.

It should not be liable to be blown down in high winds.

A complete hive should have its alighting board so constructed and protected as to shelter the bees against wind and rain, thus facilitating to the utmost their entrance with heavy burdens.

It should enable the bees to pass over their combs in the freest manner, both in summer and winter.

It should permit the honey, after the gathering season, to be concentrated where the bees most need it.

It should permit a generous supply of honey to be left in the fall in the hives without detriment to either bees or apiarist.

It should enable the apiarist to remove such combs as can not be protected by the bees to a place of safety.

It should be so compact as to economise, if possible, every inch of material used in its construction.

It should enable the apiarist to lock up his hives in some cheap and convenient way.

It should allow the contents of

a hive, bees, combs and all to be taken out when it needs any repairs.

A complete hive, while possessing all these requisites, should, if possible, combine them in a cheap and simple form, adapted to the wants of all who are competent to cultivate bees.

The Isolation of California Apiaries.

In speaking of the question of whether a bee-keeper should pull up stakes and seek a better location, if the one he has is a poor one, the *American Bee Journal* says: "Climate, home, surroundings, are all of importance. Some of the northern bee-keepers in attendance at the National convention at Los Angeles, who had cast longing looks toward the golden land, went home entirely satisfied to remain where they were after seeing some of the California apiaries. Of course all locations in California are not the same, but some of them are dreary enough. To get the advantage of pasturage an apiary is located in some canyon, away from the haunts of men, the nearest neighbor half a mile or so away, outside of the sound of bell of church or school. With many it is a life of exile during the honey season, the rest of the year being passed elsewhere, but all would not like a life of that sort."

Yes, Mr. Bee Journal man, and the work is hard, too, if we may judge from a large printed placard that I saw posted up in one apiary that I visited, presumably for the benefit of hired help. It read as follows: "Work on a bee ranch is no summer picnic."

California is so different from the east that it is not to be wondered at that some of the eastern visitors should come home pretty well satisfied with their homes in the east. A man who had always lived in California would probably go home from a visit to Michigan with feelings that California was a pretty good place to live. Those who have lived there for years are enthusiastic in its praise, and it is a grand, good thing to be satisfied and feel at home in the state where you live. So much by way of an introduction, and now let me quote a little from a private letter just received from an old man who was one of our "carload" party, Mr. J. J. Shearer, of Plymoth, Michigan, partly to visit the "hole in the ground" (mine) where he worked fifty-one years ago. Among other things Mr. Shearer says: "I left the last of my car companions at Frisco and made my way home by daylight, the better to see the country. At the mines at Nevada City, where I worked fifty-one years ago, I found pine trees two and one-half feet through growing on the ground that we worked

over. It seems as though fully three-fourths of the people had been born since I was there, and the country is overstocked with money and home-seekers. If I were a young man now I don't know what I would do anywhere in the west to make a new dollar larger than an old one without a good deal of hard work. I am glad that I went, but gladder to get home, and I think more of Michigan than I ever did."—Bee-Keepers' Review.

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[The same is about true of Texas. To get large crops of honey and territory for large apiaries one must get into the mountains away from civilization and live a life of isolation, away from schools and churches and society, but young people, or old for that matter, ought to be willing to stay out four or five months of the year in order to reap a honey crop, as only an occasional visit after the honey harvest is over is necessary to see that all is well with the bees, if honey is all that is produced, but it is quite different with the queen breeder, as he must be out at nearly all seasons to keep business going.—Ed.]

Apiary for Sale.

My apiary of fifty colonies of bees in ten-frame hives. Price \$2.50 f. o. b. Halsted, Texas. Hives are painted and arranged for comb honey. Reason for selling—the manager of the bees is dead. Address M. H. Rather, care of C. W. Harlfinger, Halsted, Fayette Co., Texas.

SHIPPING COMB HONEY.

How It Should Be Packed to Avoid Loss From Breakage.

One of the most vexatious losses that can come to a bee-keeper is to have a fine shipment of comb honey broken up in shipment. I have had quite a little experience as a shipper, with no loss in this direction, and my advice would agree exactly with that given by brother York in a recent issue of the American Bee Journal, and he has had abundant opportunity for observing the other end of the proposition, the condition in which the honey reaches its destination. Brother York says:

Only the very best and second best would we place on the distant market. We would put it in the ordinary 12, 20 or 24 pound no-drip shipping cases, placing next to the glass a row of sections containing what would be a fair sample of the rest of the case. There should be no "facing" for deception.

*Then, six or eight of these cases of honey should be put into a crate or box, but first putting in the bottom of the crate or box a layer of straw or hay several inches deep. This will serve as a cushion and help to prevent the breaking down of the combs in handling when shipping.

After putting in the cases of honey nail strips of boards across

the top of the box or crate and mark thereon very plainly, "This Side Up. Comb Honey. Handle With Care."

Along each side of either box or crate even with the top edge should be nailed a board, say one inch thick, three or four inches wide and about a foot longer than the length of box or crate, to serve as handles by which two men (one at either end) can carry it.

We would have each crate or box contain about 200 pounds of honey. Of course 100 pounds each would do, but we think that the larger amount would be handled more safely, as it would be too heavy to tumble around or to be easily overturned.

We have prepared comb honey for shipping as above and none was found broken after going hundreds of miles.

We once received a shipment of about 2,000 pounds, sent to us from Minnesota in the ordinary 24-lb shipping cases, each one being handled separately. The result was that at least a third of the honey was entirely broken out of the sections. And such a mess to clean up! Well, we don't want another like it for love or money. It was also a great loss to the shipper.

With proper care in preparation comb honey can be shipped safely almost any distance.

When on my way to Los Angeles, I, in company with Messrs. France

and Niver, called upon Mr. Burnett for a few minutes, and he was quite emphatic in his statement that the manufacturers did not make the cleats thick enough in the no drip shipping cases. As now made, if several sections leak very much, the honey is deep enough to reach the bottoms of the sections, and the very object of the no drip is defeated. He says that the strips ought to be at least one-fourth of an inch thick, and three-eighths would be better. Another thing, the strips of wood should be thoroughly fastened in place. If they slip around out of place it is worse than though no cleats had been used.

[Noting the above in Review for October, 1903, page 312, brings a fresh reminder about shipping bulk comb honey. We have had several shipments of comb honey smashed up this season, as well as in former years, and to keep down such losses we must use cases a little stronger. A case of 2-60's, 120 pounds of honey, and the case 15 pounds, 135 pounds in all, is too heavy to withstand the rough handling which the railroads give it. The bottoms of the cases, at least, ought to be stronger, and unless we remedy the light cases we may expect losses. Our present cases are also too light for 120 pounds of extracted honey. We ought to get our honey up in some

shape that the railroad companies could handle it as rapidly as they do other freight without injury.—Ed.]

Shallow Hives With Closed-End Brood-Frames.

J. O. SHEARMAN IN GLEANINGS.

The spirit moves me, or rather W. K. Morrison does—to say something on the subject of shallow hives again, as I have been using such for over thirty years and have seen no reason to discard my original size of frame (the Bingham, 20 inches long by 6½ deep, and 1⅜ from center to center). If I had to start all over again, however, I should prefer frames 1¼ inch spaced, and with closed ends entirely, for the following reasons:

1. Less propolis used in the hives.
2. Less waste room.
3. Less trouble with brace combs.
4. Less room for millers to hide in.

A year ago, Mr. Editor, you wrote me for an article describing closed-end frames. I made it as short as I could, because editors object to long articles, but if I had written up their advantages as well, I would have given some of Mr. Morrison's article. In fact, he agrees with my experience nearly, only I use a brood-chamber 20 inches long, and anywhere from two to twelve frames wide, as it is adjustable without dummies, which are a nuisance. The two or

three frame is for a nucleus, though I make up most of my nuclei with little frames, three of which occupy the space of one ordinary frame. Seven of these little frames fill a nucleus box; or by taking out the middle one and inserting a division board, two three-frame nuclei may be kept in one box.

Closed-end frames are the only ones that will each occupy exactly the same space, unless we except the Hoffman, which is virtually the same principle not carried out to a common sense point—that is, the Hoffman frame makes waste room.

Last year I tried an eight-frame L. hive by trimming the combs and tacking on thin strips of wood all the way down the end pieces, so as to space them $1\frac{1}{4}$ inches apart, then put nine frames in a hive instead of eight, and they did as well and had one more comb to brood in, but less room to make up extra drone and queen cells, as any bees will do in any hive.

Any hive with a hanging frame is a bother for me, except in an upper tier for extracting; then I move them apart so as to use one less comb in the same super. These drone combs do not harm above queen excluders. That is the only place I want drone comb if I can help myself, and none in the sections until after the swarming impulse has passed, else the queen is

apt to go up into the sections, as all queens seek to lay drone eggs before swarming.

My brood chamber is adjustable by simply moving the back board in order to put in more combs. The most of my comb honey colonies have eleven or twelve combs from June to August, but may have ten in September, or possibly only eight or nine for winter. For extracting I space the brood-chamber to the width of any super I wish to put on; or if for piling Bingham frames then put eleven below, and have a case that will hold eleven or twelve with a movable back inside in order to wedge up and tier up—the more the better if bees are in good condition and a good flow is on. The ten-frame Bingham hive has nearly the same capacity for brood as the eight-frame L. hive. The ten-frame L. hive is too bulky for me to handle. I once, over twenty-five years ago, tried an experiment for comb honey, or trial between ten L. hives (the ten frame) and ten Bingham hives. I put a prime swarm in each alternately, giving a full set of combs and boxes on top. I kept account of it, and the Bingham averaged over a dollar's worth of honey more. I tried a few of the L. hives the next year, but they did not pay as well, so I put them to extracting. That ended big hives for comb honey with me.

New Richmond, Mich.

— PRICES OF —

Bingham Smokers and Honey Knives

Smoke engine	} largest smoker }	} made. }	Per doz.		Each.
4-inch stove.			\$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 1878-1892—Knives B & H. The four large sizes have extra wide shields and double coiled steel wire handles. These shields and handles are an amazing comfort—always 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 Cent a Month!!

DEAR SIR—Have used the Conqueror Fifteen 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.

W. H. EAGERTY.

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 Dadant's has now been before the bee-keeping world for many years, and stands without a rival today. If you never saw any of Dadant's 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. Postpaid \$1.25. We sell everything needed in the apiary.

CHARLES DADANT & SON,

Hamilton, Illinois.

Grace Cell Compressor Advertisers' Editorial Page.

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.

- 1 Compressor complete, postpaid,
by mail\$2 00
Same by express or other goods... 1 75
Blank Shells, 1 cent each.

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 chamber 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.

- 1 cage, complete, cells compressed
postpaid..... 75
1 cage, cells not compressed, post-
paid..... 50
2 cages, cells compressed, with hold-
ing frame\$1 25
2 cages, not compressed, with hold-
ing frame.....1 00
6 cages in flat, blank shells included.2 50

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, **H. C. MOREHOUSE**.

Boulder, Colorado.

N. B.—A page under this heading will be open to our advertisers, and they will be allowed to make—free of charge—any announcement of special importance to their customers, such as change of prices, reference to regular ad, arrival of new goods, etc.

Note advertisement of M. H. Rather, Halstead, Texas, offering his apiary for sale. Address care C. W. Harlfinger.

Here's a Pointer for You

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, which I breed in separate yards from six to twenty miles apart. Three banded Italians, five-banded goldens, Holylands, Cyprians Albinos and Carniolans. Send for price list.

WILL ATCHLEY,

Beeville, Texas.

"THE QUEEN BEE"

Is receiving words of highest praise from the prominent bee-keepers who have read it. Thousands upon thousands of dollars saved directly and indirectly to bee-keepers if its teachings are followed. Order copy today and get your money back if you are not pleased with it. Price only 25 cents in stamps.

Don't fail to send for **World's Fair** edition of my catalogue, to be issued in January next.

T. K. MASSIE,

Tophet, W. Va.

The International Fair at San Antonio.

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

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

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

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 at home.

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 the edges, which mar the appearance of the package. It is just as easy for you to get paper the exact size of the box as 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.

It is also advisable to nail or paste the trip sticks to the bottom 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 institutes at many points in the state during the fall and winter months, and communities wanting an organization are urged to notify the directors of Farmers' 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 employed 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 and solicited.

Address **R. L. BENNETT,**

College Station, Tex.

Farm and Ranch Contest.

WINNERS IN THE CONTEST.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ADDRESS

Farm and Ranch

Dallas, Texas.

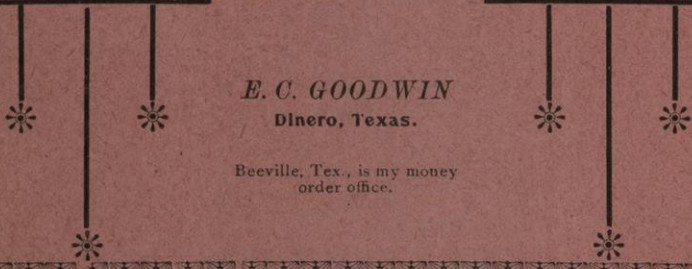


Italians Cyprians Carniolans

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

E. C. GOODWIN
Dinero, Texas.

Beeville, Tex., is my money
order office.



QUEENS.

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

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

HELLO!

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

New Century Queen Rearing Co.
Berclair, Texas.

HONEY CANS.

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

UDO TOEPPERWEIN,
438 West Houston street,
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They will save you money.
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