

The Southland queen. Vol. II, No. 10 February 1897

Beeville, Texas: The Jennie Atchley Company, February 1897

https://digital.library.wisc.edu/1711.dl/QHDNKPNV4EFVY9A

http://rightsstatements.org/vocab/NKC/1.0/

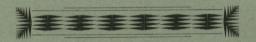
For information on re-use see: http://digital.library.wisc.edu/1711.dl/Copyright

The libraries provide public access to a wide range of material, including online exhibits, digitized collections, archival finding aids, our catalog, online articles, and a growing range of materials in many media.

When possible, we provide rights information in catalog records, finding aids, and other metadata that accompanies collections or items. However, it is always the user's obligation to evaluate copyright and rights issues in light of their own use.



The SOUTHLAND QUEEN.



BEEVILLE, TEXAS,

February, 1897.

ROOT'S GOODS

Before placing your order for this season be sure to send for Root's

1897 Catalog ready Feb. 1.

Our 1897 hives, with improved Danzy cover and improved Hoffman frames, are simply "out of sight." Acknowledged by all who have seen them to be a great improvement over any hive on the market of last year.

Cheaper and better than ever; clear as crystal, for you can read your name through it. Process and machinery patented December 8, 1896, and other patents pending. Samples of the new foundation free.

The A. I. Root Q. Main Office Medina, Q.

Branch Offices at 118 Michigan St., Chicago; Syracuse, N. Y.; St. Paul, Minn.; Mechanic Falls, Me.; No. 10 Vine St., Philadelphia Pa.

Established 1884.

J. M. JENKINS. Wetumpka, Ala.

Steam Bee-hive Factory. Full line of Bee-keepers' Supplies. Italian Bees. 60-page Catalog tells you all about it. Free.

The Southland Queen.

Devoted to the Exchange of Thoughts on Apiculture. Monthly.

\$1.00

Vol. II.

BEEVILLE, TEXAS, FEB., 1897.

No. 10.

been very severe in some of the colony, as they were away from northern states during the latter the main cluster and became part of January.

WE have just received a fine lot of sections, and frame nails, together with A.B.C.'s and wire cloth, from the A. I. Root Co.

WE are glad to report to our readers and friends that we are able to be up again, but some of us are not yet able to be out. would be willing to say now, that we had rather not have any more "gripp" down this way.

WHEW! Such a spell of weather as we have just had. Eight days the bees could not fly. ing the cold snap we had plenty of snow and ice, but the thermometer did not register much below 20 deg. above zero. It is again warm and springlike this 3rd of February.

sant, and the bees were gathering have brought us bad weather. pollen and honey and were scattered all over the hives, and a great weather for this part.

WE learn that the weather has many were lost in each strong chilled and the cold spell lasting so long they perished.

> THE outlook is very promising for a good honey season for this part of the State this year, and beekeepers are up and about their business. If we expect to catch water when the shower comes we should have the tub right.

WE cannot account for our recent cold weather, unless it was on account of so many northern bee-keepers coming in-and with them came the rough weather, or soon after. If this is the cause we must in some way try to prevent such from occuring again, and warn people living in cold countries to stop there or not come to Southwest Texas. There is Ray Royal of Arkansas, Hufstedler of near Red River, J. Lawrence of WHEN our recent cold spell came North Texas, and O. H. Stevens up the weather was warm and plea- and others from Dakota, and they

Joking aside, we have had tough

Bee-Keeping in the South.

BY L. STACHELHAUSEN.

[CONTINUED FROM PAGE 209.]

Burr-Combs.

To prevent burn combs was discussed in the bee journals for some time, and all kinds of opinious sprang up.

The fact is, that a strong colony will build some burr-combs on certain places, but hardly any into a space not wider than one-fourth of an inch. To prevent burr-combs we have to make the so-called bee space a scant 4-inch. The most of hives were made with 3/8-inch bee space, and as soon as the lumber of the hive swelled this bee space got still larger: besides this, the top bars of the heavy Langstroth frames will always sagg more or less, so it is no wonder trouble with burr-combs made its appearance.

In Germany the proper bee space was always estimated at one fourth of an inch, rather less than more, and my hives were all made with this bee space, consequently I had no trouble from burr-combs as long as the top bars of the frame did not bend down. In my shallow hive cases the top bars never sagg and are practically without burr-combs. Since a few years this proper bee space of one-fourth of an inch is generally received in

the United States; but besides this, other changes on the frame are used. The top bars of the frames are made 1½ inches wide and ½ inches deep. This surely makes it more difficult for the bees to build burr-combs and besides this prevents the sagging of the top bars; but it has other disadvantages.

A top bar of 1½ inches leaves a space of ¼ inch only between the frames. This is not enough for handling the frames, and prevents looking between the frames from the top. The bees, and especially the queen, do not like to pass from one story to the other, and more so if the top bar is seveneighths of an inch deep. All this considered, I prefer the all-wood frame, besides they are cheaper and more handy in uncaping and extracting.

Ten or Eight Frames.

For the south and for the production of extracted honey a roframe hive is preferable. A brood chamber of 10 Langstroth frames is no way too large for breeding for a strong colony with a good, prolific queen, and even some times not large enough.

It is claimed that an 8-frame hive is more convenient for the production of comb honey. I even doubt this if the bees are managed correctly. I, at least, did very well in raising comb honey over my 10-frame Langstroth hives.

It is conceded that the 8-frame hives many times after the honey flow do not contain enough honey and that the colony must be fed.

In a 10-frame hive this feeding is not necessary. If somebody thinks an 8-frame hive better for the production of comb honey, the brood nest can easily be contracted to eight frames, but in our climate I do not think it necessary.

In the spring my two cases with twenty frames, having the same comb surface as ten Langstroth frames, are nearly in all hives full of brood except the outside frames and the cells containing the necessary honey and pollen. According to my experience this is in 8-frame hives the same, and consequently the comb-surface in an 8-frame hive is too small for breeding, at least in our climate. Even our 10-frame hive is very often too small and we can control swarming only by giving extracting supers very early in the season; in fact, I keep them on the hive all the year round!

What excessive swarming may occur with a one-story 10-frame hive the following examples will show: A neighbor of mine increased nine such colonies to 100 in one season by natural swarms only; in another year he received 115 swarms from 25 colonies.

A 10-frame hive, with the shallow frames, is just right to handle, if smaller more cases would be to handle and so time would be lost.

After giving the history of the hive which I use now, I will add that I would accept a little different hive if I had to start anew. I would take two or three or more shallow extracting supers, which are manufactured for the dovetailed hive by the Jennie Atchley Co., and all other hive factories in the United States. I would order them for ten all-wood frames and would make the self-spacing tin rabbets myself; bottom board and gable cover the same as with the dovetailed hive. Flat covers are no good in a southern climate if the hive is not always in the shade; they cause the combs to melt down, especially in high Langstroth frames.

The frames of these supers are only half an inch shallower than mine, and this difference I consider too small to amount to anything. The dovetailed hive has the bee space on top, and cover, honey board, etc., are constructed according to this. I wish my hives were of the same construction. It is a great advantage to use a standard hive, as you can get everything you need cheaper and quicker and can sell it easier if you want to.

If some of our readers will kindly mail us the April number of 1896, in good order, we will extend your subscription two months for each copy received.

OUR CORRESPONDENTS.

TEFFT'S NON-SWARMING PLAN

Acme Hive Management for Comb Honey.

BY J. W. TEFFT.

Written for the SOUTHLAND QUEEN.

ARTICLE III.

To know what to do to produce honey is good; to know how to do it is better; to know what, how and why is best. Success is coming up to the level of your best. It is not only the thing we do, but the way in which we do it, that makes us good bee-keepers. It is the knowing how that excels. I have been asked how I manage to run my bees for comb honey without swarming?

The secret of my success is the Acme bee hive, drawings of which accompany this article. This hive I have used for the past ten years with remarkable success, and the interest I take in it is inexhaustible. I hope what I have to say will give the readers of Southland Queen a pure drink from the spring that all have supposed to be pumped dry.

In the Acme hive the bees, if properly managed, give no indication of swarming at any time. To allow bees to swarm before the harvest takes the strength from that colony. The plan which I have adopted starts in early spring

with a good queen, and a moderate sized colony on eight or nine combs. Place the enameled cloth over them to keep the heat from escaping. Replace the chaff cushion to keep the bees warm and the brood from chilling. Feed each day a little to stimulate the egg layer. As fast as things will admit spread the brood by putting in drawn combs alternately (if you are using the non self-spacing frame see that they are spaced one and one-half inches from center to center), until the brood chamber is full.

The brood chamber is wide and roomy, and is provided with two division boards. These division boards are not the hive proper, but form the moveable walls of the brood nest-be it one comb or fourteen--the division boards being moved toward the outer side as fast as empty combs are introduced. I invariably place the empty combs in center of brood nest and jump the frames of eggs to the outside of brood. Care must now be taken not to spread the brood too fast. An article could be written on spreading brood. When the brood chamber is full there will be thirteen Langstroth sized frames full of brood and honey and an army of workers. I manage to get the brood chamber crowded with brood and bees before the harvest, which with us commences about Tune 20 and closes about

July 25. You see that I now have the bees in prime condition ready for the section boxes.

At this stage of the work I remove all the ripe brood with bees adhering and place them in the surplus tray, rearranging the brood nest so that there will be not over eight or nine combs of brood, and put in seperators, one on each side; then the Langstroth 8-section frames, one on each side, (of course nothing but foundation must be in these sections); draw up the division boards snug to the section frames, and now have the brood nest fixed so it will be as wide at the surplus tray. the brood nest is in center of brood chamber, leaving space, or rather ventiduct, on each side, between the division boards and outer wall of brood chamber. (More of this space or ventiduct in another chapter).

I now return to the surplus tray, which is down in front of the hive, containing the frames of brood and bees from the lower chamber. I lift it up and place it over the brood next, the ends resting on the hollow walls of brood chamber while the sides rest on the division boards. Space the brood at one end of the tray, put in one moveable separator next the brood, then three brood frames containing sections (foundation only in sections), separators between each brood frame, draw up the division board

snug, cover up with enamel cloth the supposed brood below, also the frames in surplus tray. Remember, not to put drawn combs in the sections, as that is a sure invitation to the queen to lay, and for the bees to deposit pollen. If you should have any drawn comb in sections put them on during the latter part of the honey flow. We now have a rousing colony of bees, thirteen to fourteen frames of brood and sixteen sections in brood chamber. Thirty two sections with three or four frames of brood in surplus tray. They need no watching for they will not swarm. The Langstroth section frames are modified as you will notice in drawings. Examine occasionally to see if honey is coming in; if it is, add more brood section frames. When the brood in the surplus tray has hatched and the combs filled with honey shake the bees down from them, take the uncapping knife, slice off the cappings, stand the frame on its end on the bottom of hive, and between the outer wall and division board the bees will elevate this honey to the sections. Repeat this operation until all the brood frames are out of surplus tray and it is filled with frames of sections and separators between each frame. At this stage of manipulation I have ten broad frames in surplus tray containing eighty 414 x414 sections, and two more in brood chamber containing sixteen

sections with nine frames full of brood and the hive overflowing with bees. At the near close of the honey flow put on sections with drawn combs, if you have any, in place of the finished sections taken away. Do not remove the sections that are unfinished. simply put in side feeders (a sketch of which I enclose), and feed white extracted honey as fast as the bees will take it. This feeding of honey prevents any unfinished sections at close of season. These feeders are placed one on each side of brood nest, between the division boards and side walls. This space is one of the many advantages of the Acme hive. It admits of quick manipulation at any time of day, feeding, spreading brood, ventilating, winter packing, etc.

This hive and method are the result of thirty year's practice with bees, and is the system by which I manage to produce comb honey. I have never had a swarm issue from a colony in the Acme hive when properly manipulated. All is so simple. I have no honey boards, queen excluders, drone traps, no de-queening, no clipping of queen's wings, no cellar wintering, and a host of other exploded nonsensical things to burden my mind and apiary with. I have nothing in my apiary that I do not know to be beautiful and believe to be useful. What I want plus tray and spread the section

to do is to put definitely before the readers of Southland Queen a cause for which to strive, and that cause is the bee art, the enobling daily of honey bee work, which will some day put hope in place of fear, as the force which moves men to labor and keeps the world moving. In the near future I will endeavor to give a description of all parts of the Acme hive, its ventilation, method of making increase after the harvest is over, wintering, springing, etc.

You will notice no brood was removed from the hive during our white honey flow, no queen excluder used, and the queen had unlimited room. No time has been wasted watching for swarms, nor lost waiting for the bees to go into the sections.

An important part of comb honey production is the removing of the surplus. You will notice in the drawings the place where I put the bee escape is on the sides of the surplus tray. Tilt one end of the surplus tray up high enough to spread over the brood frames the enameled cloth. Let the surplus tray down, the bees will go out through the escape into the space between the division boards and outer walls, and under the division boards home. Another way I like full as well is without the escape. Do as above with enamel cloth, remove the division board in surframes, then the bees finding themselves cut off from the brood, will go up and over the top of surplus tray down into that space formed by division boards and outer walls of hive and so to brood nest.

The summit of perfection cannot be obtained by using a broad frame of the Langstroth dimensions, or a less shallow one tier section tray, but it can be obtained by the use of a brood frame of the following dimensions: Ten inches deep, 15 inches long, one and a half wide, inside measure. This will give us the metric system, as well as moving the bee business out of the cellar and placing it on the ground floor, the same as any other trade or profession.

CONTINUED NEXT MONTH WITH ILLUSTRATIONS.

POISON HONEY.

BY DR. W. M. STELL.

Written for the SOUTHLAND QUEEN.

I still affirm that bees gathering honey from Mountain Laurel, or any other poisonous plant, is poison, and will produce the same symptoms after eating it as the true alkiloid of the plant itself. In my article on poison honey in the August number of "Queen" I stated that the "milk from goats feeding on Laurel bushes contained no poison whatever, as I could discover." I received a letter from Mr. V. K. Chesnut, assistant in the Agriculture Department at

Washington, asking me to observe more closely about the goat's milk, as he thought the milk should be affected, and also send them a specimen of my Mountain Laurel and they would classify it for me, as I had not given its true name. For the benefit of the Division and my own curiosity, I bought a goat with young kid for the experiment. The goat and kid were put into a small yard October 12, 1896, without food of any kind. At 6 P. M. gave them half a pound of corn and five bushes of Laurel containing 100 leaves each. The next morning, October 13, visited the goats; they had eaten the corn, the leaves were untouched. I had the goat milked twice daily, which always gave six ounces at each milking. On the morning of the 14th found that some of the leaves had been eaten, as the goat was starved to it, after milking only obtained four ounces of milk, which had a slight peculiar taste. The young had refused to suck and had diarrhea. The milk boy drank the milk, which he vomitted up in less than five minutes, complaining of slight pains in the stomach and head, but no other symptoms followed. He was more fortunate than the lad who ate the poison honey in my first experiment. Well, I could hardly sleep that night with anxiety of knowing the result of my experiment with the goat. Arising early on

goat dead, stiff and abdomen tightly swollen. The kid was alive, as it had refused to suck. On opening the stomach found Laurel leaves masticated, and a greenish fluid, bitter to the taste, which proved that it was the substance of the leaves that caused death. On examining the bush found fifty leaves partly eaten. I now tried the experiment with white rats and mice. October 16 being my birthday, I was presented with a crown of Laurel leaves from the son of an old Mexican upon whom I had performed an iridectomy for cataract in both eyes, restoring the sight again which he had lost for eight years. I thought it strange in receiving such a present in the way of gratification of this kind, but, to my surprise, on lifting up the crown, found several large pieces of silver in the shape of cart wheels with the Mexican mint stamp on both sides. After a good birthday dinner and friends had retired, wife and I were debating what should be done with the Laurel when a thought soon struck me about the rats, so I plucked 25 leaves from the crown, which were still fresh, and bruised them in a wedgewood mortar adding eight ounces of water and le ting it remain over night. On the morning of the 17th boiled the mixture one hour and a half until one ounce of

the morning of the 15th, found the liquid remained, after adding onehalf ounce of cracked corn in the decoction in one hour it was given to a full grown rat (at 10 A. M.). which ate about one drachm; 10:30 the rat became sulky, and at II o'clock was seized with a very violent convulsion and died at 11:10. On opening the stomach found a green fluid, bitter to the taste, resembling that which was found in the goat but not so deep in color. As one experiment leads on to another, I immediately mixed two ounces of fresh cheese and an ounce of honey which was soaked for one hour in a solution of Laurel leaves, the same strength as mentioned above. This was divided into several pieces and placed at night for mice. On the morning of the 19th we found 25 dead mice all of whom had bitter stomachs. some having more or less fluid than others. There are many kinds of Mountain Laurel which are all of the same species and more or less poisonous.

Mountain Laurel, Kalmia Latifolio, calico bush.

Mountain Laurel, Kalmia Augustifolio, sheep laurel.

Mountain Laurel, Kalmia Glanca, swamp laurel.

Mountain Laurel, Laurei Rosa, Nerium Oleander.

Mountain Laurel, Lauro-Cerasi, cherry laurel.

Mr. Chesnut, of Washington, said that the Mountain Laurel I used was Laurei Rosa and not Kalmia Latifolia. I am certain that if any of the above named

Mountain Laurel was treated as I from sucking the sweet nectar used them in my experiments, it would produce the same effects. Mr. Smith says on page 722 in the A. B. J., that he could not see from my experiment that honey was poison when gathered from Laurel, because I used half leaves and half flowers, and I had better use all flowers next time, and besides he stated that many plants had their virtues in a certain part of the plant only, using the wild parsnip for an example, saying, "while the tops and leaves are harmless the roots were a deadly poison to man or beast." Right here Mr. Smith is away off. I wish I could have a basket of wild parsnips this moment, I would certainly have them on my table to-morrow. Why! I have eaten them many times, and no one can tell the difference from the tame one. There is no more difference between the wild and tame parsnips than there is between a wild or tame turkey. I do not know of any plant whose flowers could produce a nectar chemically different from the constituent of the plant itself. Basswood flowers can not produce buckwheat honey, nor peach blossoms clover honey. The honey produced from any flower must have its peculiar taste, smell and color, due to the deposit of the "squint essences" of the plant itself. We often see accounts of children, in the south, dying

from the poison flowers of the old "Jimson weed" (Datura Stamonium), and there is no reason to doubt that if bees were compelled to gather nectar from such poison plants, the honey would be poison also, and those who ate it would sufler from the effects. In the "Medical News," issue of December 26, 1886, I was amused at seeing in the index "Bees to make medicated honey," and turning to page 725 of the same issue read as follows:

"BEES TO MAKE MEDICATED HONEY. - According to a Paris journal a Frenchman has been trying to compel bees to make medicated honey. He keeps the bees under glass and gives them only flowers that have the desired properties. Thus he obtains different kinds of honey by which influenza, coughs and colds, indigestion, asthma, and many other ills are said to be readily if indirectly reached."

This is not only feasible but reasonable and practicable; for we are eating medicated honey daily. The following is a list of some of our common honey sand their medical virtues:

Peach Honey-Is a vermifuge, laxative and sedative; useful in diseases of the nervous system sick stomach and whooping cough.

Orange Honey-A mild tonic, carminative and stomachic in small children and as useful as the paregoric bottle; also this honey is a face.

Basswood Honey-A gentle laxitive and useful in constipation, and may be used as a substitute for manna.

Elder Honey - A hydragogue cathartic, emetic and diaphoretic, used as an alterative in rheumatism, dropsy and epilepsy.

Sage Honey--Tonic, astringent, cathartic and excellent emmenagogue, also good for colic and will check the sweating in hectic fever.

Blackberry and Raspberry Honey -Tonics and astringents; a favorite domestic remedy in bowel affections.

Clover Honey - Diuretic, tonic and astringent.

Horse Mint Honey-Stimulant and carminative; a good family remedy for flatulent colic and sick stomach.

Horehound Honey-Laxative tonic: valuable deobstruent in chronic hepatitis, jaundice, phthisic, cough and copious expectoration.

Golden Rod Honey-Aromatic stimulant, diaphoretic and carminative.

Smart Weed Honey - May be used with great advantage in diarrhœa and dysentery, and also excellent for sore mouth and pimpled faces.

circulation and increases the secre- in the hive, the entrance being

perfect cosmetic for the hands and tions, and is useful in vomiting, tenesmus, hysterical affections, worms and flatulent colic.

> Mustard Honey - Colds asthma.

> Sumach Honey—Astringent and refringerant; useful in inflamation and ulceration of mouth, throat and tonsils.

> Mountain Laurel Honey-Poison. Will produce nausea, temporary blindness, pain in head, epigastric tension, uneasiness, glowing heat, coldness of the extremities, pallid countenance, general prostration, feeble pulse, some times absent at wrist, twitching of the muscles, dyspnoca, convulsions and DEATH; may be used as an exterminator of pests such as cockroaches, mice and rats.

JESUS MARIA, MEXICO.

PARALYSIS OR COLD?

STONE POINT, Texas, Dec. 4th, 1896.

Editor Southland Queen:

DEAR SIR, - Yesterday I had occasion to examine one of my strongest colonies of bees and found them to be fertile workers. They were afflicted with dysentery judging from the signs on their alighting board. My attention was drawn to the number of drones that were flying in front of the hive, and upon examination I Buckwheat Honey - Stimulant could not find a queen. There and anti-spasmodic; excites the was no brood except drone brood

covered with a brownish substance dropped from the bees. If you can give me any information as to their condition please do so, as I am now trying an experiment and if I succeed will write and let you know how I made out in regard to curing and riding them of their fertile workers. I was taught when a boy that salt was good for stock when bothered with anything like dysentery, so I will try it on my bees, but in a different way to anything in the A.B.C. of bee culture and if I kill them I will have no one but myself to blame and I will not say much about it. It is not often that men accuse themselves of anything bad, and I do not know which is the worst, to see a man that censures some one else for a wrong or to boast of his wealth, he having none; consequently if I kill my bees I will have none to boast of, but if I cure them you will hear from me.

Dec. 5th, 1896.

Since writing the above I have examined all my bees and it looks as though they are all going to die. They are dying by thousands, and it must be paralysis, as near as I can judge, from the way they act. There are some dead hanging to the combs and the healthy ones are carrying them out all the time. A great many of them in the hive seem to have lost all use of themselves and all desire to sting. It

is not for want of food for they have all they need this winter, the upper and lower stories being both full of honey. We have had some very cool weather for eight or ten days, but it cannot be that they are dying from cold. They are lying all over the bee yard, old and young. What is the matter?

Friend and fellow bee-man,

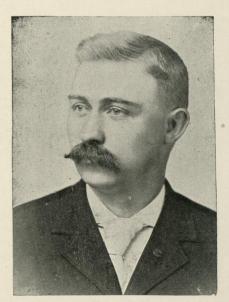
A. M. BARFIELD & SON. FRIEND B.—Yes, of course; if you discover anything of value for the prevention or cure of dysentery or paralysis by all means let us know it. Also, if you try certain remedies and fail it will be of interest to the many to know this also. From the evidence that you give we think that both the cold weather and paralysis has been your trouble. See news note, first page this issue, for information regarding the effects of cold weather.

BIOGRAPHY.

We wish to introduce to our readers the face of Mr. T. J. Calvert of Medina, Ohio. Take a look at his face on opposite page. Mr. Calvert is now business manager for the A. I. Root Co., and the following will show how he obtained such a position. We fear that this sketch may cause Mr. Calvert to blush a little, but, as it sets forth one of the soundest morals, as we look at it, that can be planted in the heart and character of any young man, we trust that Mr. C. will excuse us and

that he has grown old enough to allow this sketch to be made public without blushing. We wish to call the attention of every young man that reads the following to the high moral set forth and look to where it leads. The basis of this sketch was furnished us by a friend of Mr. C.'s who is well acquainted with all the facts in the case. We may not get the whole correct, word for word, but we shall try to give it in substance.

About fifteen years ago Mr. Calvert wrote Mr. A. I. Root a letter in substance as follows: Mr. Root -I am employed here at or near by my home in Canada, and do not wish to complain at the wages I am getting, as I am satisfied in that particular. It is other things that I am dissatisfied with. My employers use bad language and are constantly profaning the name of the Lord, and I am much aggrieved at so often hearing God's name taken in vain, and I do not think it is good for a young man to be placed in such a position. I learn that you will not employ any one that uses profane or vulgar language, therefore I wish to know if you have room for a young man that wishes to work at such a place as yours? With due correspondence the young man came over to Medina and was given a position in the factory of Mr. Root. Quite a little while had elapsed and John, as Mr. Calvert is known about Rootville, had been faithful to the letter, and all that knew him were pleased with John. One Sabbath morning (after John had been with Mr. Root or in his employ for a long time) Mr. Root heard an alarm at the door, and when the call was answered and the door was opened, the figure of John stood before Mr. Root, with very red cheeks, and as Mr. Root knew that John did not drink, could hardly account for his color, until he began as follows: "Mr. Root, I-I-I- Mr. Root, I wish to know if you have any objections to my accompanying Miss Maude to church to-day?" Mr. Root replied with his usual frankness, "Why, of course not, John, if it is agreeable with the young lady it is all right with me." Time past and the relationship grew between the young couple and a wedding was the result. At this date there is a little family living in Medina, consisting of father, mother and two sweet children, known as the home of J. T. Calvert. vert has grown to be a useful man as well as a consistent christian, and is a worker both in Sunday school and the church. He is now business manager of the vast establishment of The A. I. Root Co., and we learn that he fills the position better and shoulders the business with more ease than any one that has ever held the office. Now, boys, we wish ever one of you that



J. T. CALVERT.

reads this moral to communicate it to some other boy. We have blunderingly set forth the above, but our thoughts have been so deeply planted in the sketch that we wish that every paper in the country would copy it, that all the boys might have a chance to profit by the truths therein set forth. We could make this sketch twice as long and not do it justice, but space forbids, and we think it good as it is.



LESSON NUMBER 19.

I would like to ask you what I shall do with my one colony of bees.

(68.) The hive they are in is 22x14x 12 inches inside measure, and holds 10 frames. I think a box as large as that is more room than one colony ought to have, and I am thinking of putting two colonies in this same hive. Now, if I place a division board in the center of the hive, lift over 5 frames and give the queenless half a new queen, letting one colony enter at one end and the other at other end of hive, will the bees kill one or both queens when a super is placed over the whole, with a queen excluder over the brood nests, as the bees from both colonies will then go together? What time will be best to make the division, will March do?

A. L. KRUEGER. NEW ULM, TEXAS, February 2, 1896.

(68.) FRIEND K.—The division you propose to make is just the same as any ordinary artificial colony, and with a tight fitting division board you would have two separate and distinct colonies, and the bees might do harm to one or both queens when turned together, when super was put on. The new colony would not likely get as good a start as the other, as the old bees would enter at old entrance on returning from the field, and the new colony would be weak in bees till the brood hatched out. The best way to get them equalized in bees would be to select five of the heaviest brood combs and give the new colony, and soon they would be as strong as the other colony. The best time to make the divide will be when settled warm weather comes, and when the bees are getting strong and the honey is coming in. If you have a good, prolific queen in your big hive, you will not need two queens to occupy it, as one queen will fill those ten frames and more too, and likely give you better results than two queens, as they would likely swarm too much in the small hives if queens were prolific, as they should be. If you wish to run two queens to one brood chamber, and have no trouble with bees fighting or killing their queens, make your division board of queen excluding zinc and introduce your new queen to the queenless side by

placing her in a cage and leaving cage in hive three days, and then take off the card from candy end, and let the bees release her on the candy plan and all will be well. The bees from either side will recognize either queen as being theirs, and with a queen excluding division board and a queen excluding honey board on top, your queens cannot get together and the bees will work as one colony and do well. You can work as many queens as you wish in one hive, using queen excluding division boards to keep the queens apart, and the whole colony of bees will comingle and be one big colony. We tried that scheme some ten years ago and worked four good queens in one big hive, putting on a long super, but we finally gave it up as it did not pay as well as to have each queen off to herself. Then, if there is an entrance to each compartment, the queens will all come out, should a swarm issue, which they will do if you get busy and neglect them, then you have a monster swarm with four queens mixed up with them and a lot of work to separate them. We have monkeyed with bees, as we call it, in every way that we have seen mentioned in the bee papers, and many other ways, and we found that it does not pay, and we now let our bees occupy a hive to each colony and

only one hive you can play with them and try many schemes and learn a great deal about handling bees, but when you get a large apiary to care for, you will have no time for such schemes as we have been talking about.

(69.) MRS. ATCHLEY, -I am after counsel or advice. I have for several years been trying to secure help in my bee yards that I could depend upon to manage things and run my bees as I would run them myself, and as yet I have failed. If you know of any one that you think would be likely to know how to manage an apiary of 200 colonies for both extracted or comb honey, please let me know, also what price would be right to give a good hand?

· · NEW MEXICO.

(69.) Now, my friend, you have struck something that has puzzled me also. I have just about give it up, as it is likely that all the bee keepers that would run an apiary as I would run it myself are scarce, and as yet I have failed also. Now, it may be that we are too particular and pay too much attention to the little things that do not make so much difference any way, as I do not think that there are any two persons that will handle an apiary just alike, but in the main they may work alike. I have heard it said that when a man had his hat placed on by some one else it never was right till he touched it himself. Now, it may be that you will never get a person that get better results. If you have will farm your bees just as you

will do the work yourself, and things about the apiary may never be just right in your opinion until you touch it yourself. We have employed quite a number of bee keepers to help us, and things would turn up wrong every little while, and then when some one would go into the apiary and work awhile and get bee stung pretty well they would be out and gone in a minute and never stop to ask for pay for what they had done. Now, there is another thing that just this minute came to my mind, and that is this. When we hire any one to go into the apiary to work it we are sure to take notice of every little mistake they make and count it up against them, when if we were doing the same thing we would overlook our own mistake and say nothing about it. I do not at present know of any one who would be likely to suit you, but should such a one be heard of we will let you know. As to the price a good hand should have much depends. I think about \$30 per month, where the parties find themselves, is about right when the owner has bees enough and is assured of a crop sufficient to warrant that much being paid out for labor.

When we employ people to work our bees, I think we should have more charity than we have heretofore shown, and learn to look over little mistakes that come up oc-

casionally. If I can get a person to work with my bees that makes but few more mistakes than I do myself, I am going to try to be satisfied from this time on.

DEALTOWN, CANADA,
(70.) December 21, 1896.

Having been a reader as well as subscriber for Gleanings for the past ten years or more, and by that means having become somewhat acquainted with you, I take this opportunity of addressing you for some little information concerning the climate of your State. When I tell you that I am afflicted with chronic bronchitis and the air where my home is is pronounced by the doctors whom I have consulted to be too damp for me, and that if I wish to have my health I will have to leave here and seek a warmer climate, I would just say that my home is on the shore of Lake Erie, sixty miles from the city of Detroit, Mich., and also I have been informed that the climate of your State would be suitable for the regaining of my health, and as I know of no one that I could write or depend upon for the information that I needed, I have taken the liberty of addressing you. Now, will you be kind enough to let me know first, is it a very damp climate or not, and would I get relief from my complaint there, also, if one afflicted with asthma would get relief by going there? What is the climate along the Gulf Coast like? Is it free from fevers and ague? What chance would there be for a family of four who are able and willing to work, with a capital of \$2,000 to start with? Send me the SOUTHLAND JOSEPH S. MOORHOUSE.

(70.) FRIEND M.—I shall try to answer your questions as best I can. We thought when we started

out that we would not have anything pertaining to this country in the QUEEN, as some people might think we were running a land scheme for some real estate agent. We are receiving so many letters in the main like the one above. that we have thought best to answer Mr. Moorhouse in full, so that in the future when we get similar letters from those not our subscribers when this issue comes out, we can mail them this paper which will likely give all the information needed, and we are printing a lot of extras for that purpose.

To the first question will say, that as a rule this is not a damp country. We have some damp days in early spring and sometimes a few days in fall and winter, but on the whole this is a dry country. I am not sure that you would get relief here, but I believe this is a good place for any one with a lung or broughial affection. There are quite a number of persons who come here and get well and strong, and some find no relief. I am inclined to think that you would entirely overcome asthma here. I am told that the climate along the Gulf Coast is not so good for these troubles as back a little, as it seems that there is more dampness there. Yes; it is free from fevers and ague along the coast or anywhere else in this part of the country as far as I know. This is not a malarial

country, as there is nothing to cause such poison. The country drains itself well, and after a rain the land is soon dry and roads are good at all times of the year. I think that a family with one to two thousand dollars could do well here. This is a fine bee country, poultry do well and gardening pays. As to general farming I am not posted, but the farmers seem to be prospering and new farms are being opened up constantly. For the benefit of many others to whom this paper will be sent, I will give more particulars of the country of South west Texas than your questions cover. There is plenty of wood here while there is also some prairies. As a rule wood in great plenty is near by all the prairies. This is sure enough a "well" watered country, as all water, aside from the rivers and running streams, is drawn from wells by windmills. Plenty of fair water for the west is obtained by sinking from 40 to 100 feet, and it costs 50 cents per foot to have a well bored. This is also a fine stock country, as grass is plentiful and stock do well all the year round. Land is worth from \$2.50 to \$20 per acre, according to location and distance from railroad. The land is mostly a black sandy loam with a clay subsoil, and vegetation grows very fast. Most all the vine crops do well, vegetables of various kinds grew to perfection. Corn and cotton are the the principal farm crops grown here. We have good schools and churches and society is good. The country is fast settling up and you will likely find people here from your own state when you come. This country is fast filling up with people that are sociable, kind and clever, and good citizens are well protected. Everybody that contemplates moving to this country ought to come and look first. We have two railroads at Beeville. Hotel accommodation is good.

SELLING HONEY.

A bee keeping friend made us a visit a short while ago, and during the convention that is sure to follow a bee keeper's visit, the subject came up about selling honey. The question was asked, "Which sells best, comb or extracted honey, in your market?" Our friend replied that comb honey sold most readily, as people had not as vet become schooled enough or had not confidence enough in the producer to accept extracted honey as being strictly pure—the same as comb honey. He said that many people had much rather have extracted honey if they could get rid of that uncalled for prejudice they have against extracted honey. friend sold some comb honey to a neighbor one day, and said neighbor would not use extracted honey at all. After making the sale it was near dinner time and our friend was invited to stay for dinner, which he did. When the neighbor had taken a nice, white piece of honey on his plate, he began to squeeze out the honey with his knife and push the comb to one side of his plate, and using only the extracted honey on his bread. "Well," said my friend to the neighbor, "I thought you could not use extracted honey." "I do not use extracted honey," said he, "this is comb honey, and fine too." "Yes, but neighbor, I must differ with you, as you have extracted that honey, and it is just the same as that extracted I have yonder on my wagon." "Well," said he, "I do not like to eat the comb as it does not seem to digest well, but I always like to get the comb honey and squeeze it out myself, and then it looks more like honey."

Now, there it is, that man could not use extracted honey, and then did not like to eat comb honey and bought comb so that he could extract it himself.

It does seem that there is a lack of confidence, and if the consumers of honey could be schooled properly, there would soon be no market for comb honey. Extracted is said to be much the heathiest, and comb is such a hard grease that it is hard of digestion, but they want comb honey because it looks more like honey.

E. J. Atchley, Editor and Business Mgr.

— Assisted by —

Willia Charlie and Amanda Atchley

Willie, Charlie and Amanda Atchley. Mrs. Jennie Atchley, Ed. and Manager of School for Beginners.

Terms of Subscription.

One year, in advance, - 1.00
Three months, trial trip, - .25
Three back numbers, all different, .10

Postage extra, (24 cents) on all foreign subscriptions except Canada and Mexico.

An X opposite this shows your time is up as far as you have paid. If you wish the journal discontinued please drop us a note to that effect, otherwise we will send it on.

Advertising Rates.

One inch, one time, - - \$ 1.00

General Instructions.

Send money by Registered Mail, P.O. Money Order, Express Money Order, or Bank Draft. Do not send private check under any circumstances. One and two cent postage stamps will be accepted for amounts under \$1.00; must be in good order. Our International Money Order office is Victoria, Texas, and all remittances from foreign countries must be made through that office,

Address all communications to

The Jennie Atchley Company, Beeville, Bee Co., Texas

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

BEEVILLE, TEXAS, FEB., 1896.

WE note that James Heddon, of Dowagiac, Mich., has discontinued his bee paper. He will, however, issue a bee keepers' edition in connection with his county paper once every quarter. WE have just made our yards a visit and find the bees all in splendid shape, notwithstanding our eight days severe weather during the latter part of January.

THE Pacific Bee Journal now comes as a monthly, and the Progressive Beekeeper has enlisted G. M. Doolittle as partner editor. It is astounding what changes every new year brings.

WE are going to try to catch room somehow to clip from all the bee papers such good matter as we think will interest and instruct our readers. We have been so cramped for room that we have not had the space as yet. We may have to enlarge the OUEEN in the near future, as we had to let quite a lot of good matter go to waste last year by not having room to use it. We have been cutting down School until the scholars are complaining, or some of them, and we will try to get all questions answered up soon. We have a lot of good copy from Bee Crank that ought to have begun this month, but we are compelled to pass it by till the future.

The American Bee Journal has been doing good work in running down the honey sharks and swindling commission (or omission) men, as they omitted to render any statement or returns whatever, some of

them, when honey was shipped to them. We are inclined to think u that there is something radically by wrong with the laws of Illinois, as we note by the A. B. J. that some of these swindlers are yet scot free h doing business in Chicago.

WE note in Stray Straws, Gleanings of February 1, that Dr. Miller and the editor of that paper are boxing each other's jaws and both on the same side of the fence. We would advise that one or the other get over on the other side or quit boxing.

I NOTICE that you want some back numbers. Now, if all your readers appreciate their paper as I do you will have a hard time getting a single number. I would not take five dollars for each of mine, knowing that they cou'd not be replaced.—Dr. W. M. Stell, Jesus Maria, Mexico.

WE are glad to learn that it was a mistake, as reported in last issue of QUEEN, that Mr. T. S. Ford, of Scranton, Miss., had lost all his bees while moving them. This mistake was caused by the report of the party that had the bees in charge, he, noticing dead bees all around the hives, concluded that they were all dead and so reported to Mr. Ford. Mr. Ford writes us, that on examination after arrival, only one colony was dead and that evidently froze to death.

A. I. Root got his foot into it up in Arizona. Not only his foot, but his legs as well. As he and another party were crossing a stream of water on horseback, the horse mired up in the quicksand and the riders were compelled to jump right out into the stream, but A. I. was held fast by his animal. By timely aid rendered by the owner of the horse, he was quickly released without harm. A. I. thought he would use capillary attraction to free his boots of water by lying on his back and letting the water run out while his feet were raised in the air. This was making bad matters worse, as the water ran down into his trowser's legs cold enough to make his teeth chatter, as it was icy. Why did he not think of superfluous contraction as being the best way to get the water out of his boots, and raise his feet about half way out of his boots and quickly shove them down, which would have likely forced the water out at the top of his boots? As Mr. Root is a great experimenter we think he ought to have left that water in his boots and allowed his legs and body to take it up by sure enough capillary attraction, and see if it would not quench his thirst so much that he would not have thought of a cup of hot water for some time. Moral-We think that Mr. Root should be very careful in taking risks like that so far away from home .--Travel Notes, Feb. 1st, Gleanings.

www.DEW DROPSwww.

KIND WORDS, GOOD REPORT

I like the SOUTHLAND QUEEN very much. I have 200 colonies of bees, all in good shape.

T. G. MORGAN.

Rapids Parish, La.

Find stamps for my renewal to the QUEEN. I suppose stamps will do. I must have the paper though my bees nearly all died out last summer. We had a very dry year and the honey crop was almost an entire failure in the Upper Guadalupe country last season. Hundreds of colonies starved out here. Every one here keeps bees on the primitive style, so nothing better could be expected.

J. S. EDDINS, M.D. Kerr Co., Texas.

DEAR QUEEN, -The more I read your pages the more I am rejoiced to know that we have a good, live bee paper to read and instruct us here in the South. I admire the QUEEN because the matter she contains is not mere theory but practical knowledge and experience. This is just what we want for our guide to keep us in the way our successful fathers have trod. I worked with bees two years before I knew there was a paper devoted entirely to bees. I now find by reading the experience of others that I have no right to complain. I was the first to introduce the Langstroth hive into this country and the first to breed Italian queens. My neighbors all laughed at me, but my work has prospered. L. B. WHITTLE.

South Carolina.

[Thanks for your very kind words. We are going to pull for the Queen till we reach the top, as this is the way we made bees a success. We thank all of you for your many kind words of encouragement, and as we have but small space and cannot give all the kind words, we trust that you all may receive our best thanks, as such encouragement revives our energy and we will try to do the best we can to give you a paper worthy of support.—ED.]

I enjoy reading the SOUTHLAND OUEEN much. You are making a success of it as far as readibility is concerned, whether it is a financial success or not. We have had a very mild winter here, no snow, so to speak, and the mercury has only been once below zero. Bees seem to be wintering well, both in door and out. I never had colonies hang in such great clusters below the frames in the cellars, as they do now. Some hang down like the half of a monstrous swarm and just as quiet as death, each bee overlapping its comrade like so many shingles on a house.

G. M. DOOLITTLE.

Borodino, N.Y., Jan. 21, 1897.

[Bro. Doolittle, we expect that you have had some pretty rough weather since January 21, as we have had it pretty cool here.—ED.]

Partly Drawn Comb—A Big Thing.

Mr. E. B. Weed, of comb foundation fame, in conjunction with The A. I. Root Company, is now able to announce that the making of partly-drawn comb - or comb foundation with sidewalls 1/4 to 1/2 inch in depth, is an assured success. For a number of years Mr. Weed, who is a persistent worker, has been experimenting along this line, and, seemingly, has finally and completely won. From present indications it is apparent that this latest invention will merit equally eminent position with the moveable frame hive, the honey extractor, the bellows bee smoker, comb foundation, and many others of the greatest inventions of the past in the realm of apiculture.

One beauty of this new comb seems to be that the bees will start storing honey at once, and that by its use almost as much comb honey as extracted can be produced.

At present, the manufacturers are able to make the new comb only in sufficient quantity to supply samples for illustration. But we doubt not it will be offered for sale through the advertising columns of the various bee papers in good time for next season's use.

We have on our desk samples of the new partly-drawn comb—one of the samples having been cut out of a section after the bees had drawn it out further and also con-

tinued it downward from the original drawn starter, showing how perfectly the bees accept it and unite it with their own natural comb.

If the manufacturers can get this new comb down cheap enough in price, we believe that bee keepers will run almost exclusively to the production of comb honey, for the reason that it will enable them to produce about as many pounds of comb honey as they could of extracted, and the cost of sections and the new comb will just about offset the cost of extractors and labor of extracting. If such should prove to be the case, it may go a long way toward solving the adulteration problem, because the effect will be to put upon the market more and more comb honey, and less and less of the extracted article.

We believe that the manufacturers contemplate putting the drawn comb right into the folded sections, then the sections put into shipping cases and the latter crated in combhoney crates. Then all the bee keeper need do is to get whatever quantity he may need of sections—already filled with drawn combput them on the hives, and when properly filled and sealed, remove to the shipping cases, put the cases back into the large crate again, and it is ready to be shipped to market.

As many know, the use of partly

drawn combs in the production of comb honey is not an entirely new idea. One bee keeper has had an experience of over 25 years with such comb, and thinks that its importance has not been overestimated. Others have used it in one way or another for 12 or 15 years, and place a high value upon it.

We trust that this new way of producing partly drawn comb, and the article itself, may prove to be all its inventor and promoters anticipate. Mr. Weed has been an indefatigable worker and merits whatever success may attend his efforts in behalf of bee keepers.—American Bee Journal, Feb. 4.

DEATH OF DR. MARSHALL.

The sad intelligence reached us last evening that Rev. Dr. W. K. Marshall, D.D., of Marshall, Tex., is no more. He departed this life January 6, 1897, in his 89th year.

Dr. Marshall was well known to all the old readers of the old bee papers, and was, in a practical way, the pioneer bee keeper of Texas. He brought the first Italian queen to Texas, more than 40 years ago. The late Judge Andrews rode horseback over 100 miles to see the first Italian queen brought to Texas. In Dr. Marshall we lose a good man aud a good bee keeper. He was a Presbyterian minister and fulfilled his duties in the pulpit up to the time of his

last sickness. More will be said of him later. The Queen extends her sympathy to the bereaved family.

We have just received the MS. for the third semi-annual meeting of the Central Texas Beekeepers' Association, too late for this issue, but will appear in the March number. We understand the meeting was a complete success. Hurrah for the Central Texas folks!

We are just beginning to print the catalogue of W. H. Pridgen, of Creek, N. C. Queen rearing will be treated fully, and his improved methods of grafting cells will be explained with a cut, which will make the plan more easily understood. Mr. Pridgen is a practical bee man and a good queen breeder, and has good stock. Send him your name for a free copy of his catalogue.

The SOUTHLAND QUEEN. Only \$1.00 per annum.

Texas Conventions for 1897.

Texas State Bee-keepers' Association.

Meets at Greenville, April 7 and 8, 1897. No hotel bills to pay.

W. H. WHITE, SECY. Blossom, Texas.

South Texas Bee-keepers' Association.

Meets at Beeville, first Wednesday and Thursday in Nov., 1897. No hotel bills to pay. J. O. GRIMSLEY, SECY. Beeville, Texas.



Dovetailed Hives

Sections, smokers, queen cages, and everything needed in the Apiary. Warranted Italian Queens 75c each. Two-frame Nuclei with Queen \$2.60.

Send for Catalog.

DEANES & MINER, - Ronda, N.C.

I SAY, did you know

Jennie Atchley had queens for sale? If you didn't know it before, you have no reason to doubt it now. Write to The South-LAND QUEEN for her P. O. Address.



T. J. SKAGGS B. E. GO.

Are now sending out their new descriptive matter of South-west Texas. The readers of this paper can have it for the asking by mentioning the Southland Queen. You can also have a lovely piece of land, a home, city property, or step into a paying investment by making known to us your wants. Send 50 cents to help pay postage and have the Beeville Picayune sent to you for a whole year.

T. J. Skaggs Real Estate Co.,

BUYS THE SOUTHLAND QUEEN FOR ONE YEAR.

One Prairie Queen

FREE WITH

EVERY ORDER

Lovers of Bees as a rule are Lovers of Flowers, and we want every Lover of Bees, therefore, to read the following special offer. Until March 1st, next, we will give every reader of this Journal an opportunity to get 5 hardy rose bushes, monthly bloomers, for \$1.00, and 1 Queen of the Prairie rose free with each order. This special offer includes 1 White, 1 Pink, 1 Crimson, 1 Red and 1 Yellow rose, or customers may have their own selection; have them all white or red, whichever is most preferable. Add 10 cts. to pay postage. We can ship these roses with safety any time after Feb. 1st, as we dig them in fall, and keep them in cellars during the winter. Orders will be filled as received; first come, first served. To the first 15 parties ordering, we will add two extra rose bushes free, in addition to the Prairie Queen; to the next 10, we will add one extra rose bush. Mention The Southland Queen when sending your order for these roses.

Highland Nursery Company, Rochester, New York.

Give us your orders for Job Work

Bargains!

Prices of Dovetailed Hives and Sections reduced. We keep a full line of

The A. I. Root Co's

goods in stock, and can fill your orders promptly. We have made a specialty for the last 12 years of raising a select strain of

Italian Queens.

Your wants in this line, we can also supply. Send for

36 Page Catalog

free. Japanese Buckwheat seed for sale.

JOHN NEBEL & SON,

High Hill, Mo,

Promptly Mailed.



Wonderful Inventions

In Apiculture!

Work accomplished by Electricity, explained fully in

The Pacific Bee Journal.

After January, an Illustrated Monthly at 50 cents a year. Send for sample copy.

LOS ANGELES, CAL.

The Bee-Keepers' Review

for December, 1896, contains a double page illustration of four out-apiaries located near Flint, and managed by one man for comb honey, with almost no help. A portrait of the owner, and a description of his methods are also given. There is also a fine picture of bees secreting wax and building comb made from a photograph taken by the editor. Mr. Taylor has a long article on hives. There is the review of foreign journals by F. L. Thompson; Hasty's three-page review of the American journals; the usual extracts and editorial comments, etc.

The Review is \$1.00 a year, or \$1.25 for the Review and the book, "Advanced Bee Culture;" \$1.75 for Review and a fine tested queen—the queen to be sent early in 1897. New subscribers get the December issue free.

W. Z. HUTCHINSON, Flint, Mich.

Holyland Queens and Bees.

I now have a very large stock of Holyland Queens on hand ready for your orders, at the following prices: UNTESTED, \$1 each, six for \$5, or \$9 per dozen. TESTED, \$2 each, \$10.50 for six, or \$20 per dozen. The very best BREEDERS \$5 each. Bees by the pound—One pound \$1, 10 or more pounds 90c. Nuclei \$1 per frame or with an untested queen \$1.50, six for \$5.50, or \$10.50 per dozen. Safe arrival and perfect satisfaction guaranteed. WILLIE ATCHLEY, BEEVILLE, TEX.

Recommends Itself.

Our Foundation needs no recommendation among those who have used it, and as it is given up to be superior to all makes, we only ask a trial order, which will give you a chance to become a customer. Honey, bees-wax, veils, "Langstroth on the Honey Bee," and general bee-keepers' supplies. Write for catalogue.

CHAS. DADANT & SON, Hamilton, Ill.

J. C. Crisp,

Abstracts, Loans, Real Estate.

Notary In Office.

First National Bank, BEEVILLE, TEXAS.

Bingham Perfect



BEE SMOKERS and HONEY KNIVES.

Patented 1878, 1882 and 1892.

Smoke engine 4-inch stove	largest smok- er made		Per Doz. \$13 00-Mail,		each \$1 50
		inch stove	9 00	"	1 10
	3			"	1 00
Large,	2 1-2		5 00	"	90
Plain,	2	"	4 75	"	70
Little Wonder,	2	" wt. 100	z. 4 50	"	60
Honey Knife,			6 00		So

All Bingham Smokers are stamped on the metal, patented 1878–1892. Knives, B. & H.

The four larger 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 sutty 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, Moveable Bent Cap, Wire Handles, Inverted Bellows, and are in every way Absolutly Prfct.

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

DEAR SIR,—Have used the Conqueror 15 years. I was always pleased with its workings, but thinking I would need a new one this summer, I write for a circular. I do not think the 4-inch Smoke Engine too large. Yours,

January 27, 1897. W. H. FAGERTY, Cuba, Kansas.

ROOT'S GOODS ADANT'S FOUNDATION BINGHAM SMOKERS HIVES and SUPPLIES



KEPT IN STOCK BY

The Jennie Atchley C.,



Beeville, Texas.

Now is the time to begin to prepare for the next season. It is best to order early and then you will have plenty of time to get in shape for the harvest when it comes.

Our 1897 catalogue is now ready. Write for it. It gives full instructions in Bee Keeping. The fact is, it is a complete book on Bee Keeping. FREE.



