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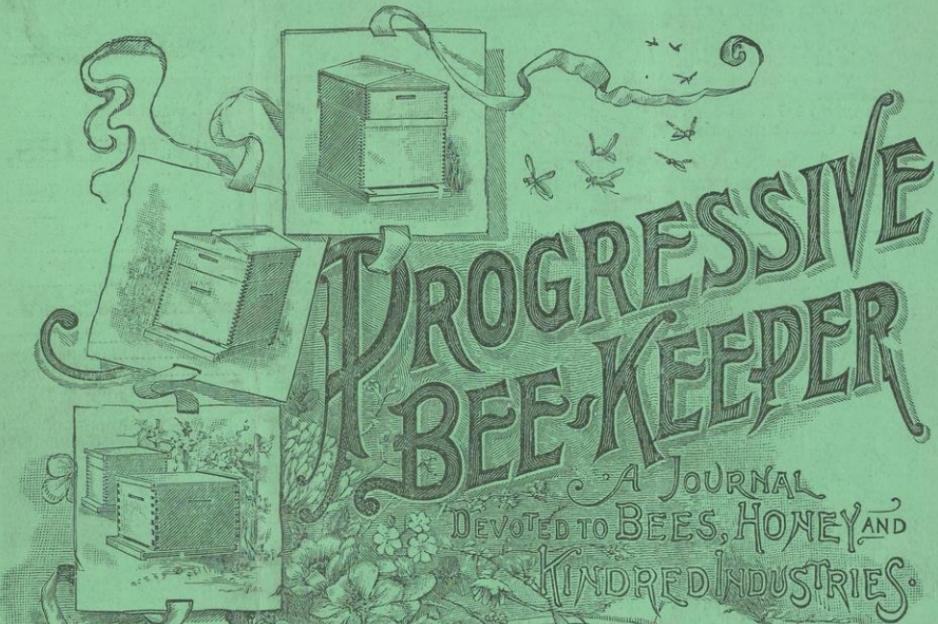
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DECEMBER 1901



PROGRESSIVE BEE-KEEPER

A JOURNAL
DEVOTED TO BEES, HONEY AND
KINDRED INDUSTRIES.



Entered at the post office, Higginsville, Mo., as second-class matter.

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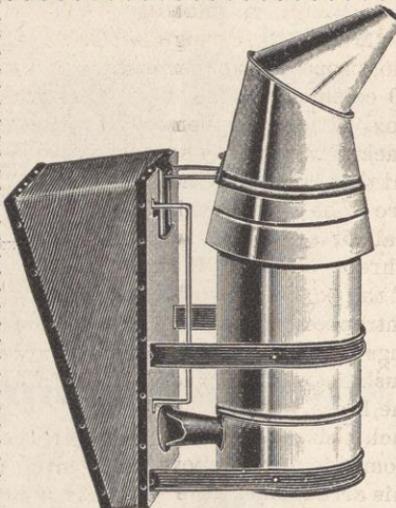
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Published Monthly by Leahy Manufacturing Company.

Vol. IX. HIGGINSVILLE, MO., DEC., 1901 NO. 12.

Risks of the "Community of Heat" Idea—Doubtful Journalistic Customs—Reduction of Unfinished Sections by Super Dummies.

F. L. THOMPSON.

"Mr. Jacob Alpaugh, of Galt, Ontario, proposes to experiment by putting 10 colonies in one big, chaff-packed box. The hives themselves will not be packed in chaff, as he wishes to avoid all that labor, but the bottom and sides are to be made of thin lumber, double-walled, and filled with dry sawdust. Three hives will face each end of the box, and two face each side, the entrances being placed opposite openings cut through the walls of the box. Cushions will be placed on the tops of the hives, and the cushions will be of such a size as to completely fill the box from side to side above the hives. By this arrangement the work of packing and unpacking consists in simply setting the hives in and out of the boxes; while the combined heat of ten colonies will assist greatly in keeping up the temperature."—The Bee-Keepers' Review.

So I thought a year ago, but struck an unexpected snag, and would now feel pretty shaky about following Mr. Alpaugh's plan, on account of the failure of a similar one. Groups of ten or twelve colonies, close together in a row, were completely covered with one

thickness of resin-sized sheathing paper, and one thickness of tarred felt over that, with holes cut opposite the entrances. The fall count was 117 strong colonies. The number of effective colonies at the opening of the flow in June was 75. The fact that when the covering was removed a number of the colonies were very strong and a number very weak seems to indicate that the community of heat drew bees from some hives to others. It might be said that moving the hives together from their former positions, as was done at the home apiary, would confuse the bees. But the percentage of loss at the out-yard was exactly the same, though the hives there were already in groups, having been moved from another locality six weeks before and set down in groups.

The American Bee Journal is trying to make it appear that it is all right to include an article under the general head of "Contributed Articles," that originally appeared in another journal, without giving that journal credit, providing it is stated at the head of the article that it was read at a certain convention. That will hardly do. That gives the impression that it was owing to the enterprise of the journal copying it that the article was printed at all. Thus the journal from which the article was actually taken is deprived of its just due. As a matter of fact, the American Bee Journal could or would

not have printed the article in question unless it had first been printed by the other journal, because it made the attempt to get the convention proceedings, but did not try hard enough, apparently, for it did not succeed, while the other journal did. It says anything read at a convention is "public property,"—but gives no authority; apparently it is so because the American Bee Journal says it is so. To my notion, equity would decide it to be public property only when one is there to get it, or succeeds in arranging with some one to get it for him. It costs effort to get it, and that effort should be recognized. Unpaid articles of the ordinary sort are also borrowed, but it is considered wrong to fail to give credit to their publishers. Where is the distinction?

Another late custom that is not exactly right is that of removing the name of the journal to which credit is given from the heading of the article, where it formerly stood in distinctive type, to the end, and putting it in ordinary type, and on the same line as the concluding words—in other words, making it as inconspicuous as the credit given to a single paragraph. No doubt most instances of this are now imitative, but there seems to be but one possible reason for the origin of the change.

The doubtful newspaper practice of editorials not written by the editor, yet unsigned, has also crept into our journalism. It is hard to see any sound reason for it. There may be reason for the matter itself, and reason for emphasizing it by putting it in a prominent place; but why conceal the author? Even initials, or a pseudonym, would be better than for the editorial tub to stand on some other bottom. If the matter is better than he could write himself, he gets credit he does not deserve, and if worse, he hurts himself; nor can he excuse himself by pleading he did not see a particular paragraph until printed, for the public holds him

responsible. A case in point is the padding paragraph on page 290, October PROGRESSIVE. As I have already nailed the lie it echoes, I need not notice that foolishness on its own account. The young man may not be so much to be blamed as those who set the example to weak or immature minds. But while I believe Mr. Leahy and Mr. Doolittle of the odium of its petty spite, I would remind them that a little closer supervision of what gets under their names would be only justice to themselves, if the custom of leaving off the signature of assistants must be continued.

A greatly reduced proportion of unfinished sections at the end of the season, and practically none to change around during the flow, is the result of one part of the procedure advocated on page 327 of the PROGRESSIVE, November, 1900, namely, dummies at each side of the super. Five hundred were used. As to the other part of the method advocated, thin permanent combs on those dummies, it is obvious that one season's trial is not sufficient, as a portion of the season was consumed in building those combs in the first place. The dummies were made of wide separators, cleated on one side with five $\frac{1}{4}$ -inch cleats, and on the other with five $\frac{1}{4}$ -inch cleats. (The object of using the $\frac{1}{4}$ -inch cleats is to avoid the insecurity of attaching a thin piece of wood, like a separator, to the $\frac{1}{4}$ -inch cleats with small nails.) The dummies were placed so that the $\frac{1}{4}$ -inch spaces faced the inside of the super. As a pair of these take up the same room as one row of sections, a ten-frame super with dummies holds 24 sections, and an 8-frame super holds 20 sections. But the advantage of handling supers instead of sections much more than compensates for the reduced number of sections in each super. To get the thin permanent combs built on the side with $\frac{1}{4}$ -inch cleats, in the spaces between the cleats, I suggested, with-

out having tried it, warming the separator sufficiently to attach the foundation to the wood. I found by trial that it could be so done, but was too puttering and uncertain a plan, so fastened the foundation by rolling its edges with a foundation roller, then tapping it down to make it lie flat. But the bees nibbled the foundation off of about two-thirds of the dummies prepared in this way. The rest were built out, so that I shall have some at least to start with next year at the first of the season. I shall try fastening the strips of foundation by first brushing the spot with melted wax. The little combs were not built out exactly as expected, for almost invariably they were not only built on the separator forming the midrib of the dummy, but also on the separator between the dummy and the row of sections adjoining, so that that separator also was firmly attached as part of the dummy, and the combs were $\frac{1}{2}$ -inch thick instead of the anticipated $\frac{1}{4}$ -inch. But that arrangement suits me very well, as it makes one less loose separator to handle; and as the strips of foundation (placed vertically) were not very wide, the combs did not occupy near all the space between the cleats, but were more like big burr combs than anything else, so that there is even less honey permanently invested than I expected. It is important to have the dummies as deep as the full depth of the sections, otherwise their combs may be connected with the adjoining section combs, as happened with a few that were too narrow.

But though the bait comb part of it cannot be fully tested until they are started with at the first of the season, I begin to think it is not relatively so important after all. The essential feature of the plan seems to be merely the clustering-place provided outside of the outside rows of sections. I infer this from the fact that before any bait-combs were built at all, the supers supplied

with dummies could be taken off, entirely finished, without waiting nearly so long as would have been the case if the outside rows of sections had adjoined the sides of the super. The outside rows were not finished quite so soon as the center ones, to be sure, but there was not long to wait. This being the case, I wonder why Mr. Pettit should insist on both features of his plan being essential—the super followers and the bottom-board arranged to make the incoming bees crawl up the sides of the hive—and why he should want his followers perforated. The simple unperforated dummy has proved so nearly good enough in my experience that it seems hardly worth while to take additional pains. This view is confirmed by the following, which I find in the American Bee Journal, being part of an editorial account of a visit to a bee-keeper: [Mr. G. W. Stephenson] "has only 24 bee-way sections in the regular 28-section T-super, leaving a large open space at each side to be filled with bees. In this way the outside rows of sections are sometimes sealed over first, and all are as evenly filled as could be desired. To hold the sections in the super he has a $3\frac{1}{2}$ -inch follower board at each side of them, with wedges between the followers and the sides of the supers. He also wedges the sections to one end of the super, so there is an open space at the opposite end also."

Denver, Colo.



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Wintering Bee.

FRED HAXTON.

I have been wintering in cellars a few seasons, but the disadvantages so greatly outnumbered the advantages that I have wholly abandoned indoor wintering and now winter on the summer stands in hives packed with chaff. In the first place, it is very difficult to obtain a cellar suitable for wintering, for such a cellar must be dry, and one which can be so regulated as to maintain an even temperature throughout the winter. It is more necessary that the temperature be even in the cellar than out of doors, because the hives, with their thin walls and wide entrances are more susceptible to changes of the weather. The cellar must be free from mice, or the entrances to the hives should be protected with wire screen of a coarse mesh, else the mice will enter the hives and gnaw the combs. They seem to show a special liking for combs containing pollen, and are especially troublesome to the hives containing the greatest supply of it. The cellar must be capable, not only of being heated to the required temperature, but must also be arranged that it may be cooled, for in the spring warm days make the bees uneasy and they crawl out of the hive onto the cellar bottom and perish. It is often impracticable to move the bees out on warm days and replace them before a cold wave, so the season in winter quarters must be much longer to cellar bees than to those kept on the summer stands, which have the advantage of being able to fly out whenever a favorable opportunity presents itself. The colonies on the summer stands come out, in my experience, in much better condition than colonies of the same strength wintered indoors. It is no more labor to pack a hive with chaff than it would be to carry it into the cellar and return it to its place in the spring, while the outside colony re-

mains right where you want it.

Wintering bees in a cellar is an unnatural method, but success can be obtained in such quarters if the cellar may be kept through the winter at a temperature of from forty to fifty degrees. Recent experiments at the Ontario Experiment Station show that bees winter better and consume less honey at a temperature of forty-three degrees, than if kept in a cellar of any other temperature. To remove the dampness from cellars, place a handful of unslaked lime on the floor. In the process of slaking this will absorb quantities of moisture.

The wintering of bees is not completed until the honey harvest has begun, for though the bees may have withstood the rigors of winter, many colonies are lost through spring dwindling. Usually this is caused by the loss of the queen during the winter. In this case it is useless to attempt to have the bees raise another from eggs procured from another hive. About two weeks elapse before the queen is hatched, and when hatched she is worthless, as there are no drones flying, so before the queen can become of use, four or five weeks must elapse, and by this time the colony is in such a demoralized condition that it will be of no service in honey production. If a colony be queenless in the spring, the best thing to do is to unite the unfortunate colony with a stronger one. In this way the added strength helps the better colony at a time when it needs it most, and the weak colony becomes of some practical value.

The handling of bees in cold weather is injurious and should never be done unless absolutely necessary. After settled warm weather it is well to go through the hives and cut out most of the drone comb from all except a few of the best colonies, which because of the good quality of their queens as breeders are chosen to rear the drones,

on whom to a great extent depends the value of the young queens, and consequently the worth of the colonies as honey gatherers. By cutting out drone comb in all but a chosen few, the production of drones is held in check.

Half of the "travel stain" on comb honey is caused by the dirty condition of the hive body and frames. Before the commencement of the honey flow I secure an empty hive, well cleaned and transfer to it separately the frames of the first hive. Each frame before being placed in the clean hive, which is set upon the old stand, is scraped with a stiff bladed table knife, the blade of which is cut down to three inches in length. By this method the whole wood work of the hive is left in a neat condition which encourages the bees to enter the supers early, and assures to you comb honey which fills the standard requirements for an "extra fancy" article, provided the supers are not left on the hive too long. If a couple of inches are cut off the bottoms of the brood combs, the bees, if there is a good flow of honey, will replace this with new comb, which improves the brood chamber in both cleanliness and capacity.

The best way to determine the proper time to put on supers is to remove the cover and observe whether the bees have begun to add new wax to the brood combs at the top of the bars. If they have done so it is an indication that they have outgrown the capacity of the hive and that they must have more room in which to store honey. It pays to use full sheets of foundation in the sections, and separators have come to be regarded as almost an absolute necessity for the proper production of comb honey, to obtain which is the aim of the great majority of bee-keepers.

Ithaca, N. Y., 1901.

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Does Bee-Keeping Pay?

S. E. MILLER.

The above is a question that is often asked and we might as well ask does farming, merchandising, manufacturing or almost any other occupation pay?

The question might be answered either yes or no, for in all we may see failure on one hand and on the other success.

My attention has been drawn to this subject by a letter I received from a gentleman in St. Louis who desires information in regard to a good locality and who contemplates going into business on a large scale. Judging from his letter I infer that he is not thoroughly posted in the business but expects to go into it as a profitable investment. The question therefore is, will it pay? I will presume that the man with the capital is not capable of taking charge of an apiary himself but must hire competent helpers.

Now, I know that many will not agree with me, but at the risk of being on the contrary side of the question I will say yes. However I am going to make several conditions.

First, the investor must have capital enough to run the business on a scale so large that he can pay reliable and competent helpers such wages as their knowledge of the business will command, and still have enough left to pay him good interest on the amount invested. Second, he must find the best possible location, where he can establish a large number of out-apiaries without coming seriously in contact with other yards already established or else buy out the owners of such yards.

Third, He must have the best strain of bees, to be found, regardless of cost. However this is an easy matter for nearly every queen rearing who advertises in the various bee journals has the best, but joking aside he must have the best strain to be found, regardless

of yellow stripes or long tongues he must have bees that gather nectar wherever and whenever there is any to gather within the flight of their apiaries and once he has such a strain his helpers must be able to maintain and even improve upon their merits.

Fourth, He should have a thorough system. Everything should be neat and orderly. There should be a place for everything and everything in its place so that when one attempts to do anything he need not fall over several other things before he gets to the thing he wishes to do. You see I have been there, and so have you. Of course when anyone comes we show them through the apiary and honey house. We tell them we have just been awfully busy and have not had time to straighten up things yet. This is much better than to leave them go away thinking that things are always up-side-down.

Fifth, after securing a good crop of honey our work is only partly done and to dispose of it to the best possible advantage is no small part of a bee-keepers work.

In many respects the producer with a large crop has advantage over the man with a small crop. He can afford to devote more time and attention to finding the best market. His transportation charges are proportionately less, and the cost of handling in every way is reduced. This package costs him considerable less when bought in large quantities and in almost every item on the expense side of his account there is a saving over the man who runs things on a small scale.

Bluffton, Mo.

Bees and Grapes.

J. W. ROUSE.

We have scored one for the bees this season. We have had some trouble to convince some here that bees are not the first aggressors in attacking grapes.

This season being extremely a dry season, the bees did no good at all around here, many starving so that there are only just a few bees in our town, having a demand for them we sold the most of ours, so when grape season was in, the bees did not bother the grapes at all so far as we know, but a man in town told us that the birds were destroying his grapes as he saw them doing it but did not see a bee around.

We noticed last season (1901) of some grapes, we believe they were concords, that were left on the vines until they were over ripe so that one could smell them for 30 feet away, and we never saw a bee on them at all.

There is a party here that says that he has watched the bees at work on his grapes and saw three bees in one grape with their heads together and would commence and work until they would get at the inside of the grape. We told him that that was only a coincidence of his seeing the three bees so doing as that was the first instance I had ever heard of of bees so doing. He seemed only about one-fourth convinced but what the bees were doing the mischief in the first place.

We have another man here that we are utterly unable to convince with any argument or proof that we are able to bring but what bees do attack sound grapes, so we have given him over to "hardness of heart and reprobacy of mind."

I see Dr. C. C. Miller and the editor of Gleanings have up the time it takes to hatch a queen bee and are quoting experiences from Mr. T. W. Cowan. The editors think that he will change the figures to 15 instead of 16 as they now are in the A. B. C. of Bee Culture as the number of days it takes a queen to hatch

There must be some difference either in the bees or climate or manipulation to get queen bees to come out of cells

in 15 days as we have never been able to do that as far as we have observed.

In the matter of hatching chicken eggs if left to the hen to do it and so does her work well, the eggs will hatch in a little less than 21 days. The stamina and vigor of the stock having much to do with the hatching. Also the right temperature being maintained, eggs from run down stock that may have poor vitality, or if the vitality has been injured by keeping the eggs too long before setting or if the eggs should become chilled any all has something to do with the time it takes to hatch. We believe in some experiments reported with eggs in incubators, that eggs have hatched in about 18½ days; but this is too soon, as the eggs have been kept at too high a temperature and the chicks will be immature and weak.

To hatch bees they should come out on the 20th to the 21st day in an incubator although with poor temperature or poor vitality of the egg the hatching may be delayed until the 24th day. And we are sure that this same rule may largely apply to the hatching of the queen bees. As the hen takes nearly or quite 21 days to hatch her eggs under good conditions according to nature, we believe under the best conditions, queen bees may come out of their cells in about 15½ days, although under unfavorable conditions, the time may be extended until the 18th day.

We seldom ever have been able to handle the cells careful enough to get queens out of cells, much less than 16 to 17 days unless the queens are nearly ready to come out anyway. We somewhat doubt if queen bees can be made to hatch at least in our climate and conditions, in less time than 15½ days.

We are very much pleased in what we read in Gleanings, Oct. 15, of Dr. Millers' reply to a correspondent in speaking about adulteration of honey and feeding bees sugar to get them finish up sections. He says in part:

"Just now about the greatest foe the beekeepers have to fight is adulteration, and for them to band together in a national association to fight it and then to feed sugar themselves to get sections finished would be about as consistent as is the Christian man who prays 364 days in the year for the downfall of the saloon and then on the 365th day, votes to support it." I perfectly agree with the Doctor in this, but am also very much pleased to know his sentiments in the liquor question as this indicates that he votes as he prays.

I do not understand how any one can pray for God's "kingdom to come in earth" and then vote to defeat its coming. Some pray for God's will to be done "in earth" but the book does not read that way, and I doubt if His will will ever be done on earth only in individuals, but, I know it may be done in earth or our bodies.

Mexico Mo.

Stories in The Companion.

In the fifty-two issues of its volume for 1902 The Youth's Companion will publish between two hundred and three hundred good stories. Four series of stories which promise to be exceptionally entertaining will be "Tales of a Deep-Sea Diver," "Tales of a Circus Hand," "Tales of a Mississippi Pilot," and "Tales of an Indian Agent." There will be four stories in each group.

Among the contributors of fiction during 1902 will be Annie Fellows Johnston, Eva Wilder Brodhead, Arthur E. McFarlane, Homer Greene, Ellsworth E. Kelly, Elia W. Peattie, Grace M. Gallagher, Alice Morgan, Elizabeth McCracken, C. A. Stephens, Alice Brown, Jack London, H. S. Caulfield, Margaret Johnson, Edward W. Thomson, Carroll W. Rankin, May Roberts Clark, Sarah Crne Jewett, Margaret Sangster, Marshall Saunders and Sarah Barnwell Elliot.

A full announcement of the new volume will be sent to any address on request. The new subscriber for 1902 who sends \$1.75 for the new volume at once will receive free all the remaining issues for 1901, including the double Holiday Numbers; also The Companion Calendar for 1902, lithographed in twelve colors and gold.

GOOD THINGS IN THE BEE-KEEPING PRESS.

Somnambulist.

My! did you observe that vehement thrust directed me by F. L. Thompson in the Nov. Progressive? Most likely though I needed waking up, to which, possibly implied accusation I am, invariably, ready to plead guilty. Thank you. In rating up Missouri failed to mention malaria. Did I? Now what would one think of a salesman who instead of giving us the usual song, these goods are warranted to be all wool and a yard wide, will not shrink, the garment will neither rip, tear nor ravel and the shoe run down at the heel, would as diligently point out defects or flaws in the same? I am a Missourian only by adoption, but in a twenty three years' residence I have so far failed to form a personal acquaintance with malaria! This may be partially due to no particular desire, on my part to secure an introduction. However there are some people in the world that can have everything they want, and sometimes more than they bargain for. Who is it, of mature years, that does not know that in all new countries, comparatively speaking, malaria holds a high hand until dislodged from many lurking places? Under such conditions it is but a case of, press the rattlesnake's button and he will do the rest. If I had been asked on Thanksgiving day, what were you most thankful for, I should not have replied as did the little boy "why, for it's being less'n month 'till Christmas "but because said F. L. T. had accused me of no greater crime than "Blandness." He very much reminds me of that lady of national repute, Carrie Nation, who if she does not see trouble ahead will hatchet. The plain practical fact is that thousands of homeseekers have passed over Missouri, only to settle

in countries far excelling her in drawbacks. Were I to attempt to enumerate those peculiarly belonging to Missouri I could not possibly equal his list against Colorado as given on page 308. There's no denying that a man wants to know all about a new country "but complete knowledge is to be had only by sampling it yourself, on the ground and by the time it is obtained in this manner many of the seemingly disadvantages have had their sharp edges worn off, or in other words have resolved themselves into matters of course or mere nothings, to use slang parlance, when you get used to them."

The fact is if one is not able to accommodate themselves somewhat to circumstances the fewer changes made the better. But in a country as good as Missouri, if a man does not secure his share of the game you can depend upon it that it is mostly because he fails to get the scent in his nostrils and to keep his nose to the ground. The experience of T. W. Morton only tallies with that of many another and serves to illustrate how some people, not a few in number, insist on saving at the spigot and wasting at the bunghole. Oh it's a free country and just let them alone it's their blessed privilege. The old timers are more than willing to give the bee-journals their deserts knowing full well that the success of all beedom largely depends upon them. They not only instruct us what to do but also that which to let alone.

I am pleased to see S. E. Miller advocate the use of ingenuity in as much as it frequently seems totally foreign to hired help. Just why it is so much of a stranger to them is positively mystifying. Perhaps they have, unfortunately, slightly missed their calling, at least, one has ample scope for the cultivation of patience. You've heard of the old lady, who, when informed that her daughters lacked the capacity for music exclaimed: "Indeed;

why I will have father bring them some the very next time he goes to the city." Under the above conditions I feel just like the old lady, I would like to import some ingenuity. Wonder if I myself have not an opportunity to exercise some of it?

Now I have several hundred covers which were cut from Puck years ago and upon which the bees have been faithfully spreading propolis ever since, (except perhaps when they varied their performance by gnawing holes in the same), what's to hinder my getting around bladed chisel and starting a corn plaster factory forthwith. Of customers there surely would be no scarcity, for how very few but that can intelligently sing with the poet:

"I feel it now, sure as you're born
I feel it at my painful cost.—
'Tis better to have loved and lost
Than to have someone step on your corn."

In this same bundle of Straws the fact that many pears blight is also brought to the front. Question, in such cases, how much has the bee to do with it? Still another straw reads:

After trying for years to get people to say "colony" when colony was meant, Gleanings has given up being so hide-bound and now allows "stand" for "colony," and on page 816 "hive" is used for "colony." Of course, "swarm" for colony is equally admissible, and is, in fact used, page 817. It gives variety to have several names for the same thing and several things for the same name. It's a good deal of trouble always to choose carefully the right word, and it will be a good deal easier if any old word will do. Then there will be a pleasing variety in the VARIOUS WAYS in which the same article will be UNDERSTOOD.

Query?—does it ever pay to be hide-bound, or to have any thing around us that is so afflicted. On page 861 we find, from E. H. Schaeffle of Murphys Cal.,

HONEY FROM CORN; THE PROOF OF THE PUDDING.

Do bees gather honey from corn? According to Mr. Gale we might as well expect "figs from thistles" as honey from corn. In Mr. Gale's experience, "We may as well expect to get honey from ferns or mosses as from

grasses, or expect a hen without ovaries to lay eggs, as to expect honey from a plant that has no nectaries. Bees can not gather honey from maize, because the flowers have no glands wherewith to secrete it." Now, a nectariferous glandule is one that produces nectar or honey. It has been said, that "seeing is believing; but feeling is the naked truth." If you would determine this "corn honey" secretion for yourself, go out in the cornfield before sunrise; walk in among the stalks and watch the bees. You will find them fairly swarming over the tops of the corn. Step up closer, and you will observe that they insert their heads well into the bell-shaped cups, and work most industriously. Now pick off some of these cups, and strip them between the thumb and finger nail, and you will see exuding a starch-like liquid, sweet to the taste. Return to this same corn-patch an hour after the sun has shone on it, and the bees will be absent. If the bees were simply after pollen they would continue their trips throughout the day; but as they are in search of nectar they discontinue their visits as soon as the sun has evaporated the nectar from the flowers. Since the corn nectar is to be had only in the early morning, the bees naturally gather from other sources throughout the day, and, in consequence, the "corn honey" of one section will not be that of another section, as the mid-day sources of honey will differ. Corn, more than any other plant, closes its flow of nectar early, in consequence of its flowers being all exposed on the extreme tops of the stalks, and is, therefore, more in the direct rays of the sun. Go out into a corn-field and test the matter for yourself.

Within the past month I was asked to take the honey from the apiary of Ira Flanders, of Big Tree, Cal. I found three hives with body and super filled with honey; three with a few combs just started, and twelve without even a comb started in the supers. These bees were all in one row, and yet there are honest bee-keepers who will not believe that such conditions can exist, because they do not meet with them. E. H. SCHAEFFLE,

Most of beekeepers in "this neck of the woods" entertain the notion that bees obtain honey from corn; one thing is certain, some seasons they work on it most persistently. However I have been so sleepy that the idea that all this activity meant pollen alone, never succeeded in securing a lodging with me. What can be expected of sleepy heads anyway? Where little has been

EDITORIAL.

G. M. DOOLITTLE & R. B. LEAHY, EDITORS.

G. M. DOOLITTLE.

WE HAVE NOW COME to the last month of the year, and this will be the last number of the PROGRESSIVE BEE-KEEPER for the year 1901. Our bees are all ready for winter, if we have done what we should have done up to this time, so the seasons' work for this year is practically ended, with the bees.

AND WHAT SHALL WE DO NEXT? Sit down and take our ease, or while away our time at the country store or post office, listening to or indulging in idle gossip? as many are prone to do. No, no, don't let us do that for such would be time worse than wasted. Now is the time for the bee-keeper to put on his "thinking cap" and do some real hard thinking.

WHAT? Pass away my leisure time in thinking? Yes, and not only think during a leisure evening or two, but, if necessary, take whole long days of valuable time for it. Such is not time thrown away, as the ignorant or impractical sometimes imagine. Very much of your future success will depend upon what and how you think, as the writer has every reason to believe from past experience. Through such thinking comes knowledge, knowledge about our business which is profitable.

WHAT ARE WE TO THINK ABOUT? Here are some of the things which I have spent much study on, and which should be of interest to every one interested in bees. Is the arrangement of the hives, and the location of the apiary such that I can do the most work with the least friction and weariness possible, during the busy season? When I first commenced, my hives were scattered about under different trees, and some distance from the bee

cellar and honey house, but now the hives are arranged on the hexagonal plan so that one can go through the whole apiary, between the rows of hives, in any direction, and the whole very close to the bee cellar and honey house. The time spent in thinking this out and arranging it, has saved me months, if not years of work and travel, during the past 25 years.

WHAT MISTAKES HAVE I MADE and what has the past season profited me? Can I tell you? O yes, lots of thinking can be done along this line. I set the bees out of the cellar too early. That was a mistake which cost many lives with the bees, lives which were precious to me, in that their lives would have been the means of bringing the lives of thousands of other bees on the stage of action just in time for the honey harvest, and in losing these thousands of "other bees," pounds of honey was lost, which pounds represented just so much income for the labor invested. Another mistake was, in not shipping my honey to market earlier, as the earlier made shipments went in good order, while the last going so that a cold wave struck it, causing it to arrive in a broken condition, thus again lessening the income for the labor invested. O yes, scores of lessons on mistakes I see, and nearly as many regarding the profit side. But probably mine are not like those of the readers, so I will let each one sit down and think out all they can along this line.

CAN YOU RAISE BETTER QUEENS, and have you a good and satisfactory way of introducing them? A little kink I got this year for raising queens early in the season and late in the fall, when bees will do really good work in any other way, was this: Remove the old queen, then close the hive and gently blow smoke in at the entrance, pounding slightly on the hive till the bees are alarmed so they will

fill themselves with honey. Now open and shake half or more of the bees into the nuclei box, I have explained about before. This box is so arranged that the bees have access to what is known as "queen candy," such as is used in sending out queens in the mails. The box of bees is carried to the honey house and left till the next day, at which time the colony is given a prepared lot of queen-cups, and the bees put back. They will "go for" cell building "to beat the band." Twenty-four to thirty-six hours later put in a frame of honey on either side of the frame of cells and take all the combs having brood in them from the hive, shaking and brushing all the bees off. This adds a new impetus to the matter, and brings forth queens of the very highest type of perfection, especially if the colony is fed in addition, so that much heat is kept up all the while till the queens are ready to emerge. But I'll not think more for you along this line.

HOW ABOUT THE INTRODUCING? Well here is something I found sure beyond anything I ever tried before for quick introduction, except the hatching brood plan: Remove the old queen and proceed to shake the bees into the nucleus box. No need of wasting time to have them fill with honey in this case, if you have your box so arranged that the bees have access to the queen candy, as such a box should be in all cases, so that the bees need not "grow poor" under the confinement. If the weather is comfortably warm, you will not err by shaking the bees from every comb into the box, as enough will remain on the combs and about the sides of the hive together with those returning from the field, to protect the brood about the same as there does after a swarm has issued. If the weather is cool take less bees. The box is to have the bees put in it during the early forenoon,

and set in the honey house, or some cool room, as soon as the bees are in, where it is left for 24 hours. At the end of this time, take your queen to be introduced and put her in a cage having a plug or stopper in one end with enough queen candy in it so that the bees will eat it out in six or eight hours. Attach a wire to the cage on the bottom of the box, when you will open the funnel hole and hang your caged queen in so the cage will be near the top of the box. Now leave till near sunset, when you will hive the bees back in their own hives, the queen now being out and going in with them. During this nearly thirty-eight hours absence the bees remaining in the hive have missed their queen and gladly welcome their companions back again with the adopted queen. And I find that it makes no difference whether this queen is a laying queen or a virgin; either is accepted just the same. And this is the only sure way I know of to introduce a virgin queen. If your queen to be introduced has come through the mails, hang the cage in the box, bees that came with her and all, only seeing that a hole is made nearly through the candy so that the bees will liberate her before sunset. But I'll not think for you further along this line.

THERE ARE SO MANY THINGS TO THINK OF that I will only touch a few more to guide your thought a little. Is your apiary properly equipped? Can I add to this equipment to help its usefulness? Have I advanced in the science of apiculture to the highest pinnacle? If not what are the things which will profit most? Can I produce better honey than this year? Can I put it on the market in better condition and more attractive shape? Can I dispose of my honey to better advantage than during the past? Will I be able to do all work with the bees next year more rapidly and just at the

right time than I did during 1901? Is my capital invested in hives, sections, extractors, storage, etc, etc, sufficient for the business I am trying to do? Why, a whole week of quite valuable time could be profitably spent in deep and hard thought along these, and other lines which will suggest themselves to the one who is really interested in apiculture. Then having some of these questions solved we are ready to get to work preparing for next season. Get all of your old and empty hives around and see that each is in good repair and ready to be used at a moments notice when wanted next May to July; fix up all surplus arrangements, cleaning of bits of combs and

propolis where necessary, and then filling with sections, having foundation starters, or full sheets all in place, and the "bait section" where they should be, to entice the bees to work with the first season; when these are to be stored away also. And so on with everything you may expect to use by way of practical work in the apiary, or for any experiment you would likely want to conduct. If you thus do, and thus work, my word for it, you will pass one of the pleasantest winters that it has ever been your lot to pass, beside standing on much higher ground, apiculturally, than any on which you have ever stood before.

Borodino, N. Y.



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and San Francisco.

The drought still prevails in Missouri hence bees have collected no fall honey whatever but we believe bee-keepers have wisely left in the hives what honey was collected last spring and summer. This surplus has stimulated brood rearing, and bees have gone into winter quarters with plenty of young bees in sufficient stores for winter. Our hopes for a bountiful honey crop in this section were never stronger.

Heddon Hives are used entirely by Mr. Miller, of London, Ontario, in his three apiaries; and he says that it has always been a great wonder to him why this hive has not come into more general use among specialists. Much of the matter written regarding the use of other hives, those with deep, loose, hanging frames is not applicable to the Heddon hive. This hive is adapted to a system peculiarly its own. It is adapted to the handling of hives instead of frames. For instance, in looking for queen cells, in order to determine which colonies are preparing to swarm, there is no necessity for taking out a comb, or even taking off a cover. Simply raise the upper section of the brood nest—if no cells are being built between the two cases it is safe to assume that none are being built.—Bee-Keepers Review: Another thing that has curtailed the sale of Mr. Heddon's hives "there was a patent on it."

The Youth's Companion in 1902.

To condense in a paragraph the announcement of The Youth's Companion for 1901 is not easy. Not only will nearly two hundred story-writers contribute to the paper, but many of the most eminent of living statesmen, jurists, men of science and of letters, scholars, sailors, soldiers and travellers, including three members of the President's Cabinet.

In a delightful series of articles on military and naval topics the Secretary of the Navy will tell "How Jack Lives;" Julian Ralph, the famous war correspondent, will describe "How Men Feel in Battle," and Winston Spencer Churchill, M. P., whose daring escape from a Boer prison pen is well remembered, will describe some experiences "On the Flank of the Army."

And this is but a beginning of the long list. A complete announcement will be sent to any address free. The publishers also announce that every new subscriber who sends \$3.75 for the 1902 volume now will receive all the issues for the remaining weeks of 1901 free from the time of subscription; also The Companion Calendar for 1902—all in addition to the fifty-two issues of The Companion for 1902.

CHRISTMAS GIFT.

We know of nothing better as a Christmas present for our new subscribers and old subscribers who will pay for a year in advance than a bottle of Rieger's California perfumes—all varieties, made in California where the flowers grow. Lately we sprayed our printing office with it and the three young lady typists pronounced it "just lovely and the best thing for colds." Send in your subscription soon and get a bottle of this lovely perfume, as we make this offer for only the month of December. Address

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LAND & FIELD

Higginsville, Mo.

"RIVERSIDE FARM or LED BY A BEE."

BESSIE BOND, Author.

[This story began in the Sept. PROGRESSIVE.]

CHAPTER V.

A TURKEY HUNT.

"What a capital idea," exclaimed Will as soon as we had fairly started homeward. "When did it strike you, old boy; just as we said 'good night,' or has it been several days hatching?"

"I am so eccentric then, I suppose either way would be natural enough for me, would it?"

"Of course! You know you are as whimsical as your great-grandmother could be, were she living now."

"Well, I'll take your word for that, but I have thought of this entertainment from the first day you all came."

"And never mentioned it to any one of us! Cal, I'm surprised."

"Well, what would have been the good in telling it when the house and grounds have been such a 'Topsy-turvy-town,' being overhauled and renovated. It's time enough when everything is in 'ship shape' to mention it to the rest of our party, though the guests must be invited a week before-hand. I heard Ben say one more day would finish up the grounds, and I am sure we can have the rest of those carpets down, curtains up and draperies hung by Monday night, if we try; then Aunt Bettie will have plenty of time to do the cooking."

"Yes, but who else is there to invite? You can't boast of many neighbors."

"There, you are right, but there are several in and around the little city that will come. They are a jolly set, too, and I guarantee a good time for all. The Bird family will spend the day while the rest will come in the afternoon and stay till after the ball at night."

"Ah ha! A ball, too is it? Maybe you will tell me the whole program, if it's not too much a secret."

"Sure, if you want to know, Lawn tennis before noon; fishing afternoon; and four o'clock tea on a small island, which I myself have christened 'Lady May's retreat.'—

"Why such a name?" interrupts Will.

"Because in the center stands a stately live oak, which supports a whole family of grape vines, forming a natural summer house, where the wild violets bloom and the birds sing the year round. It is always May-time there, and the little spring bubbling 'neath the hill makes a quiet home-like scene."

"Go on," said Will.

"That is all, except the supper and ball afterwards."

"Capital," exclaimed he, giving me a sounding slap on the shoulder, which scared old Jep and made him trot up for a little way. At the supper table Monday night my plans were all unfolded to the rest of the party; ways and means heartily discussed; only keeping back the secret of "Lady May's island," in order to give them a pleasant surprise. The work was all done, just as I thought it would be, and after supper when the boys repaired to the saloon to smoke their pipes, Mart and I stepped quietly out and down to the river, carrying a gun and fishing tackle. After setting the hooks in the river we rowed across to the other side and stole quietly along a cow trail, not daring to say a word lest we should scare away our game, when Mart gave my sleeve a sudden jerk and whispered "Look up almost over your head, and tell me what

you see." "A buzzard" I said, shaking with laughter. "It's a turkey and I'll prove it in a moment," said he, taking steady aim. "Crack!" went the gun, and something came flopping and scrambling down to our very feet, which proved to be a turkey—"Buzzard." "Hallelujah!" ejaculated Mart. "How did yon know it was a buzzard, you scallawag?" I did not try to restrain my mirth longer, though I believed it would scare every turkey off its perch; for it was turkeys we were after.

"Get your buzzard, Mart, and we will go a little farther," said I laconically.

"Buzzards be hanged!" roared Mart, "I shall not go another step."

All the persuading I could do would not make him budge a step onward till I promised not to tell the story of his first "wild turkey" hunt to the rest of the boys. Besides it was against the law, even in those days, to kill a buzzard. So we proceeded farther into the woods and in a short time came upon a thick clump of foliage where I knew was a turkey perch. I stationed Mart in the path where he should stand till I gave him a signal to advance, while I crept closer to the foliage, peering upward. Yes, they were there, and we both fired our guns at the same time and each brought down a turkey. I told Mart that was enough for once, but would let the other boys accompany us on the night following, and see if they could do as well, for I thought two turkeys and a buzzard was doing extra well. But Mart was in a good humor with himself after bagging a real turkey, and could take the joke—as Pat says—with "aequanimity," and enjoy it too.

"Now, we have got to dress them;" said I, for fear they would not be fit to eat if left alone till morning, and I knew the servants would all be abed before our return; so we gave the fowls a "lick and promise" and hung them up in the larder, just where we knew

Aunt Bettie's head would come in contact with them when she went in to get breakfast, then as quietly as a thief in the night we went to our room and to bed.

The next morning Aunt Bettie stood by my bedside when I awoke, with tears in her eyes, showing a very troubled countenance.

"What is it, Auntie?" said I kindly.

"O Lawd, Mars Cal, I wud not beliebed it of you; when your po ole Aunt Millie and me has done our bes to bring you up right, and now we'se gotter beg de good Lawd to forgib us for raisin' of such a chile," said she, wringing her hands.

I knew it was myself she was distressed over, and I hated to be cross with her, but I knew that was the quickest way to get any sense out of her, so I said very harshly. "Dry up your nonsense Bettie, and tell me plainly what this is all about. What have I done to disgrace the house of Rochester?"

"What hab you done?" said she, pointing to some blood stains on my clothes, worn the previous evening. "What do dis mean, in connection wid dose birds hangin' down in de larder? Say, chile, tell me that!"

"Why, you dear old goose!" said I, laughing out-right. "It means I went hunting last night and killed a wild turkey and dressed it myself, rather than disturb you from your restful slumbers."

"Well, may the Lawd forgib me den, for I tout you stole 'um," and with that parting shot she left the room.

I told about it at breakfast and neither of us ever quite heard the last of it. That evening Pat and I lay in wait at the river for the deer to come for a drink, and managed to bring down a year-old fawn. That barbecued, and the turkeys we killed that night made a perfect feast for my guests, of which they talked long afterwards.

(TO BE CONTINUED.)

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SEVENTH ANNUAL MEETING

Of The Central Texas Bee-Keepers' Association.

Continued from Last Month—Reported by
 Louis Scholl, Secretary.
 Hunter, Tex.

Following will be found a list and the rate at which they are offered to members of this association, and is only good when paid together with your annual dues at the time specified in article III, as all must be sent to the publishers at the same time:

REGULAR PRICE. ASSOCIATION PRICE.
 50c—**PROGRESSIVE BEE-KEEPER**—25c

Higginsville, Mo.

50c—**The American Bee-keeper**—25c
 Jamestown, N. Y.

\$1.00—**The Southland Queen**—50c
 Beeville, Tex.

\$1.00—**The American Bee Journal**—75c
 144-146 Erie St., Chicago, Ill.

\$1.00—**Gleanings in Bee Culture**—50c
 Medina, Ohio.

\$1.00—**Bee-keepers' Review**—75c
 Flint, Mich.

By looking over this list and the rate at which the subscriptions can be obtained it will be seen that by taking two or more of them enough is saved to pay the annual membership to the two associations, hence your membership is **FREE**. Besides every bee-keeper **MUST** subscribe for one or more of the bee-journals to keep posted and up with the times.

All subscriptions **MUST** be sent to the secretary of the Texas Bee-keepers' Association to be forwarded to the publishers all in a lump.

The secretary was instructed to write to each member, of the change that has taken place; of the new name of the association; of its new constitution; its new business objects and intentions and to notify them all of their annual dues of one dollar.

Mr. Atchley kindly proposed to prepare circulars in this regard and to assist in such other ways as were in his power, which was greatly appreciated and accepted with thanks from the association.

This all devolving a great deal of writing to be done by the secretary, the members very kindly turned over to him an amount sufficient to pay for a duplicating machine and the secretary was instructed to purchase such a one.

Further, the secretary will be furnished with printed stationery and envelopes to be used in corresponding in the interest of the association.

Mr. Atchley, publisher of the Southland Queen, Beeville, Texas, has volunteered to do this printing free of charge to the association; unanimously accepted by a rising of all the members and a word of thanks by Pres. Salyer in behalf of the association.

Upon this a call for new members, to become members of the "Texas Bee-keepers' Association" was made and all present enrolled. Many took advantage of the low price of the subscription of the bee-journals along with their fee.

After this the general subjects on program were again resumed and "Manipulating bees for a large yield of extracted honey" was handled by O. P. Hyde.

The main objects were to have good prolific young queens; large hives, not less than 10-frames. Then tier up as soon as room is needed, three or four stories high and as soon as filled and well capped over, take out the honey. He also touched on the minor points connected with producing large

amounts of extracted honey, the above being the real objects.

W. O. Victor read one of his articles contributed to the Review, page—of July issue, which, however, is too lengthy to copy and issue is not before me to make a summary.

“How can queens be forced to lay in queen cell cups?” was told in a paper by H. H. Hyde.

He does not claim to be responsible for being assigned that subject and hopes nobody will be disappointed if he fails to give a satisfactory solution of the question. Has not much experience to prove or disprove this query, but cited a case where he put his cell-cups in top stories of good colonies before grafting, to have them polished by the bees, where he distinctly remembers where in one case the queen laid an egg into such a cell, which was built out and hatched a queen. Went on to say that by placing cell-cups conveniently in a hive of bees, who wish to supersede their queen, such queens could be forced to lay in them. Also at swarming time queens can be forced to lay into such cell-cups conveniently placed in the hive. At other times it would not seem practical and hard to accomplish.

Mr. Stachelhausen thinks that it can only be done during swarming time.

Mr. Atchley spoke about how it could possibly be done by placing cell-cups around and near drone brood, conveniently, and where queens are mostly found after their regular season's laying has been at its fullest, when the queens are almost worn out from the hard work of depositing worker-eggs. It is then that they are almost crazy to resort to depositing drone eggs, as it seems to be easier for them to do this than that of laying worker-eggs. This of course, like the other cases cited, will be at about swarming time.

A paper from Willie Atchley about the “Importance of good queens” was

read in which he said that too much could not be said about queens. Good queens, good bee-keepers and good localities make bee-keeping a success; and either of these essentials lacking, bee-keeping is a failure. It is highly essential that all apiarists look sharp to the prolificness of their queens, and the working qualities of their bees. Give him good queens and a good location and he will turn out a crop of honey.

Mr. Weaver and others gave some of their experience about good queens and good management being a sure road to success. Some told about the difference in queens; some being large and fine looking, but almost worthless in other qualities, while some of the very smallest, sometimes cal'd “stub” queens have done wonders. This, however, is not as a rule.

“How to raise good queens,” came in following, by Mr. Davidson, who gave his methods, ways and modus operandi, which was given at previous meetings of the Central Bee-keepers' Association and the proceedings of which have appeared in the “Queen.” He recommends the Alley plan he has so long practiced, and with which he has been successful.

H. H. Hyde spoke in favor of the Doolittle plan and method, and although the **BEST** queens can be raised by the Alley plan with the Doolittle method, good queens and more of them can be obtained.

Experience in moving bees was cited by many and fully discussed.

O. P. Hyde had much, and varied, experience in moving bees, as they move bees nearly all the time. Has also had some **FUN** connected therewith on which account he went to studying, to find out the best way to move bees and has been quite successful. To close the entrances, he uses a device, (the idea of which he obtained from a bee-keeper who did not know anything about bees, only having a colony or

two), with which he can close up the entrances of ten hives to one closed in the ordinary way by tacking wire-cloth over the entrance. It is simply a piece of tin about 2 inches wide, with a cleat or piece of board half as wide nailed on the upper edge, all as long as the hive is wide. The lower half of the tin is perforated with holes to give ventilation. Now, with $\frac{3}{8}$ wire nails in the cleat just tack on to the entrances and it is done.

Next the cover is nailed down with two more nails, one on each side, into the side walls of the hive. Two or more story hives are held together by means of strips of lath nailed on to the sides of the hive, diagonally across the sides.

In hauling one should have a wagon bed wide enough so two hives can be set, end to end, across the bed and other tiers the same way on top of these. For this purpose they have an "Electric" handy, low wheeled wagon, with a wide platform, having low side railings on the outer edges. If understood rightly, the back ends of the hives rest on these letting them slanting towards the middle from each side. The second tier, when put on top will thus easily stay in place. In this way they have hauled bees for over 30 or 40 miles and hardly a quart of bees was lost.

Mr. Davidson and others have used wire cloth, but it is much trouble.

Mr. Atchley told about some of their experience, as they move bees extensively. They keep a large share of their bees on the migratory plan. Sometimes it happens to rain heavily some distance from their bees and the country around being a most wonderful one in regard to the quick growth of honey yielding and other plants after a heavy rain, that flowers appear most abundantly in a very short time. It is then that they move the whole apiaries from dry situations onto the fields yielding nectar.

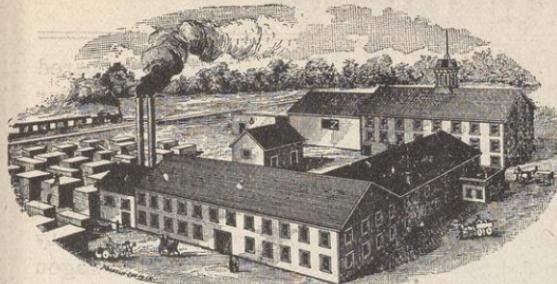
For all this they are extra prepared with bee wagons and some 200 regular shipping cases with wire cloth, provided with slotted cleats into which the frames are hung, with all the bees put in, closed up and are then ready to haul on the special bee-wagon. The empty hives are hauled on any other wagon separate from the bees.

Mr. Victor makes large frames by ripping hive bodies into rims 6 inches square, onto which wire cloth is tacked. This is nailed over the top of the hives after the covers have been removed. He next sticks moss into the entrances, nails cleats, one on each side of the hives and they are ready. H. H. Hyde recommends cleats nailed on diagonally across and from opposite corners from the one on the other side. In winter or cold weather, wooden cleats to close the entrance is sufficient.

"Importance of large breeding space" in a paper by L. Stachelhausen was read. The secret of successful bee-keeping is to have the colonies at their fullest development just when the main honey flow commences, for which purpose it is necessary to use different managements, whether the flow is early or late in the season. In most localities this honey flow is so early, that we have to do all we possibly can to develope the colonies at the right time.

His, and other bee-keepers', experience has taught that in their localities they can get their colonies developed to the most possible strength before the main honey flow, without any work at all, if they give them a large breeding space and large brood chambers. An experience of about 20 years has taught him that in his climate at last, the division of the brood nest into two or more shallow stories is no hindrance as for the developments of the brood; the queen will pass without any hesitation these "sticks."

(To be continued.)



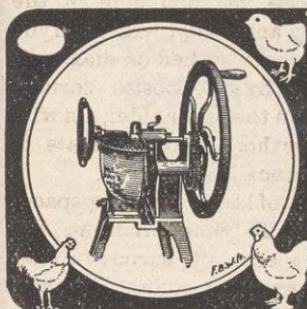
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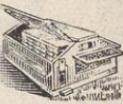
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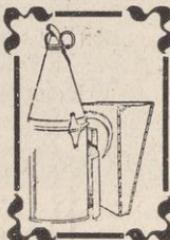
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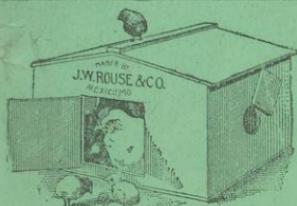
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