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PROGRESSIVE BEE-KEEPER

A JOURNAL
DEVOTED TO BEES, HONEY AND
KINDRED INDUSTRIES



PUBLISHED BY

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October 1904.



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The Progressive Bee-Keeper.

A Journal Devoted to Bees, Honey and Kindred Supplies.

VOL. XII.

HIGGINSVILLE, MO., OCTOBER 1904.

NO. 10.

Good Things in the Bee-Keeping Press.

SOMNAMBULIST

Ordinary bee-keeping alone seems not to have been sufficiently fascinating for O. O. Poppleton, as he combines it with boating, fishing, shell gathering and so forth on the Florida shores. He favors the general bee-keeping public with a modest account of his summer life in the American Bee-keeper, page 176. He moves his bees to where the mangrove flourishes by means of a gasoline launch with which he tows a lighter, said lighter is capable of carrying 300 single story langstreth hives. I have been for some time trying to convince myself of the feasibility of locating "out apiaries" along the Missouri say seven or eight miles distant and visiting the same by means of a gasoline launch. One could do as he does, find more than one use for the launch. For years I have been thinking my location, so near the banks of the river, a less favored one than those farther away, because of one side of the territory being water, from which no honey could be gathered, but if this water could be utilized as a highway the tables might possibly be turned, and who knows but that it might be done? No one will deny that success in life lies in making the most of our opportunities. Reverses sometimes prove friend in disguise, acting as stimulants to activity, which creates almost new conditions which in their turn truly reverse matters, and why should not the Missouri river be turned into a help-

ing friend? I merely offer this as a suggestion for those who may be in a position to use it as an aid. That it should be more generally used as a public highway is unquestionable, in the mean time if a bee-keeper could in a private way make use of it, why not?

W. W. McNeal on page 179, American bee-keeper presents some thoughts worthy of consideration, especially as the winter preparations are now going, busily on, but hive manipulation, however systematic it may be with shallow hives, cannot make those hives as warm as hives of natural built combs."

"The divisible brood-chamber must have outside protection to make it as warm as a large single-story hive of the same capacity would be without outside packing. And it was this matter of greater warmth of single-story hives that caused me to change from the shallow frames to those that were 11 inches deep for the brood-chamber. When a colony of bees has weathered the bitter cold of winter and its vitality is far spent, the arrangement of the combs for warmth and protection is of the greatest importance when breeding is begun in early spring. We all know that brood cannot be reared profitably where chilling drafts of air circulate. The brood-chamber that is made up of two cases of shallow frames cannot save the energy of the bees as it should, owing to the great amount of cold air passing around the combs and through the very heart of the brood-nest.

One case of combs, containing as it must the necessary stores, is inad-

quate to the purposes and requirements of early brood-rearing, and when another case of combs is added the conditions become such, that if they are not bad they are simply worse. The combs in the lower case that come directly under those containing brood in upper one, cannot be warmed as economically as the lower half of combs in a large single-story hive. That must be evident to one and all for it is simply a physical impossibility for the bees to do it when the heat generated can so easily escape through that horizontal air space between the two sets of combs. The bees must be enabled to confine the heat of the cluster at the point of operations in brood-rearing or there will be a wanton waste of vitality in an effort to meet the growing demand for brood in the lower case. There must be corresponding means for maintaining the same degree of warmth in that position of the lower case of combs which the bees desire to use for breeding purposes and if the arrangement of the combs does not allow of this, then the expense of additional outside protection must be carried to get the benefits of a double case of combs, in numerical strength, whatever may become of heat after it escapes from the cluster we may be assured that it does not return. The accumulation of frost and ice on the outer combs and upon the walls of the hive would seem to be sufficient to dispel any doubts on that score. Imagine, if you please, a person trying to keep warm and healthy during the long, cold winter in an eight or a ten room house with no ceilings to any of the rooms. Then let your fancy picture a midway opening in the walls of the rooms extending their full length and you will have conceived a first rate kind of an idea of a frame cornerrib but a poor one for a nursery."

The Deacon referring to an article

which appeared in the Review, comments, "Now there's a chap in York State 'lows as how taint possible to overstock a locality, that he's got hundreds of colonies in a spot. Then h'gosh, right in the same breath almost he says he feeds tons of sugar. Wal, there is some truth in sayin' yer can't overstock a sugar refinery location. D'ye spose he'd dare flavor that syrup strong with onions? No, not by the great horn spoon. The best part of it is W. Z. endorses the practice, so do a lot of the big producers, so do the Gleaning's folks. If you will just sort of cast your eye over the writins of the boys as tells of the big yields you'll find every durned one of them says they feed early, feed late, feed between times, feed slowly, feed steadily, feed any old way, only feed. Why say, the boys would tar and feather the chap as should get through a law a compellin' of em to flavor their syrup right up strong. Oh the wickedness of the korn syrup folks and the sinful cussedness of the fellers as mixes in a little glucose to keep the honey from candying, Don't you see them fellers is without the ring, they don't belong to the graft. They don't keep bees, they're rank out-siders, they're scabs. Oh! ho! ho! ho! Say its just royally blamed fudny. Bees eat up the feed afore it gets into the surplus crop. You say color it sky blue or flavor it rank and taste for yourself. No don,t give one little dose, just feed accordin' to rules, early often and always. There aint no such thing as overstocking so long as sugar holds out. If this be treason make the most of it. A-h-h-h-h-h."

W. Z. replies in Review as follows: "A writer in the September issue of the American Bee-Keeper also takes Mr. Alexander and the Review editor to task for advising such feeding of sugar. I am surprised that any practical bee-keeper should make any such

criticisms. Mr. Alexander very explicitly explained that the feeding was to be done only for a month or six weeks in the early spring, before the beginning of the main harvest. At this time there would be no supers on the hives, and the small amount used, "not more than two cents worth a day," would be used up in breeding. In the fall, if the bees were fed sugar for winter stores, the sugar would be stored in the center of the brood nest in the cells vacated by the brood last hatched, where it would be the most likely to be consumed during the winter, and surely would be used in the spring before storing in the supers would begin. This is exactly the course advised and practiced by J. E. Hetherington. It strikes me that such criticism is more a straining for an effect than for anything else. Every bee-keeper who has had experience in these matters knows that, under such circumstances, the chances are very slim that even a small portion of the sugar would go into the supers; and to intimate that Mr. Alexander's surplus is materially increased by the sugar that goes into the surplus, is decidedly unfair."

F. Greiner in his department, *The Beekeeping World*, gives us this information under the heading, *Russia*: "A peculiar method of migratory bee-keeping is practiced in Russia on the large rivers flowing south, according to the Rhein. Btzig. Large log rafts are constructed and covered with soil upon which some gardening is done. An apiary is located upon it and the attendants put up a tent for their shelter. I surmise the moving is done nights, rests are taken during daytime. The rafts are floated down the rivers during the season. The final stop is made at the end of the season in a section of the country whose timber is scarce. The rafts are taken apart and the timber sold. Bees and honey are

disposed of and the attendants make their way homeward by rail or steamboat."

The following "to prevent swarming" is taken from *The Housekeeper*, and is furnished to its readers by Mrs. Leona Williams. "One of the greatest problems a beginner in bee-keeping has to solve, is how to prevent swarming, and bees kept for extracted honey are not much given to it. They are kept so busy filling up the big combs with honey that they haven't time to think of it. And again they like a hive with big slabs of honey so that a large number of them can cluster on them and work together. Bees like a hive like a great big hollow tree. They abhor the little pound boxes for comb honey, the partition fences used to keep the comb nice and straight, but with only room enough for one bee to pass in and out, and more often than not they get disgusted, quit work and swarm. One hive of bees run for extracted honey and brushed or shaken when necessary, a process easily learned and as easily accomplished, will give more profit than ten hives run for comb honey and allowed to increase by the natural process. In fact there is seldom any profit in the latter, as the necessary hives, supers, etc., which must be bought every year will eat up all the profit.

COMB HONEY IN DISFAVOR,

Admitting that comb honey sells for, say one third more than extracted, there is less preference for it every year. In Minnesota and some states adulterated honey must be so marked and if strained (extracted honey is marked "pure honey") it is pure. One is no longer obliged to pay for one half pound of box and comb in order to be sure of getting one half pound of pure honey; the public has been quick to see this, consequently the demand for comb honey is lessening, while for pure extracted honey it

is increasing. Never destroy a frame full of comb; every one is worth many dollars as they can be kept and used almost indefinitely. Pretty stout for a woman in a woman's journal. I wonder if the bee-keepers whose wives and daughters clean up after them ever consider how very difficult the removal of wax and propolis from a hundred and one things which have come into too close contact with same? I have been tempted to surmise that if they did there would not be so many things daubed up. A little more thoughtfulness on the part of the bee-keeper would save much labor on the part of those who are often scarcely able to keep up with what seems naturally their part. One lady of my acquaintance has discovered the use of turpentine in removing propolis. She thinks it magical in its work. Would you believe it I have known of one good man who was so close with his wax that his wife and daughter had to "slip" a little when needed for household purposes. These people laid it among linen that was to remain idle for a time to prevent its getting yellow. Time was when "out apiaries" were an experiment, and their success questionable, but that is past history and now it would seem that the something new and experimental, is "migratory bee-keeping." Think you we will live to see the latter out of the experimental stage and on a firm basis? Greater wonders have been. In these days of camping, tenting, boating and out door sports, said development would naturally be enhanced.

M. S. U. Enrollment Breaks Record.

Friday the enrollment of the University of Missouri reached 1521 which is the record for attendance on the twenty first day after the opening. Last year at the close of the twenty first day 1367 had enrolled.

Embryo Life of the Bee.

Copied From Gleanings.

"Can you tell me, Mr. Doolittle, how long it is from the time the queen lays the egg for a worker bee till the same emerges from its cell a perfect bee?"

"I do not know that I can, Mr. Barber."

"I thought I had read, some time ago, somewhere that you thought 21 days was the time."

"I presume you did, for I have so written; and that would be what I would say now if I told you without qualification or explanation. But these qualifications and explanations would make it so that I could not place any exact time which would meet the wants of a critic. But 21 days is near enough for all practical purposes."

"I think you claimed about six days in the larval form in that article of yours which I read."

"Very likely."

"Well, how do you reconcile that time with the four and a half to five days as given by others?"

"I do not try to do the reconciling. I let the others do it."

"How is that?"

"Quinby gave in his 'Mysteries of Bee-keeping Explained,' which book was published about 1865, that the egg, as laid by the queen in worker-cells, hatches in three days to a larva; this larva is fed by the nurse bees six days when the cell containing it is sealed over, remaining thus for twelve days, during which time it undergoes the change 'from caterpillar to butterfly,' when the covering to the cell is eaten off and it emerges a perfect bee—that being 3, 6 and 12 added together, giving a period of 21 days from the laying of the egg to the perfect bee.

Quinby's figures and dates have stood the test of nearly forty years, and it is not for his followers to try to

do the reconciling, but for the ones who give different figures to prove that they are correct."

"Does not the weather make any difference with these figures?"

"Yes, and that was the reason I said that 21 days was not exact enough to meet the wants of critics. Very warm weather hastens this development to a certain extent and cold weather retards the same."

"Have you tried the matter for yourself?"

"Yes. Always being anxious to things for a certainty, so far as they can be ascertained, I have conducted many experiments along this and other lines. To test this I placed a frame of nice worker comb in the center of a populous colony about the first of June, and watched it nearly every hour till I found eggs in it; and when so found the hour and day were put down on the top-bar of the frame. As my diary tells it, in about two hours less than three days I found larvae hatched, and in six days and two hours I found the first cells of brood fully sealed over. In 11 days and 23 hours I found the first bee out of its cell, and quite a few biting their cells open near where the first one had emerged."

"That was pretty close to Quinby, wasn't it?"

"Yes; and from this trial I was entirely satisfied as to the correctness of Quinby till a few years ago, when I was withstood by a bee-keeper of considerable prominence who claimed the bees were in the larval form only about three and a half days."

"Didn't you tell him he was wrong?"

"I was about to contradict the statement, but concluded that I would not, as I had made only the one experiment. So I went to experimenting again, the weather being extremely hot at this time, and right in a big flow from the basswood in July. The result during this very hot weather

was a little less in the egg form, a little over five and a half days in the larval form, and but little over eleven days in the pupa form, or only about 19½ days from the egg to the perfect bee this time. And this is the shortest time that I ever knew bees to emerge from their cells in any of the experiments which I have ever conducted."

"Might it not be that in the South this might be brought down to 19 days?"

"It is barely possible; but I hardly think it probable. I have many times cut out all queen cells but one on the seventh day from the issuing of the first swarm, and had said colonies build queen-cells over larvae still unsealed; and when these queens were old enough to come from their cells, send out a swarm with the queen emerging from the cell I had left in cutting, I expecting that all larvae would be too old to change into queens, which they would have been if the theory of larvae being capped at four days old were correct."

"That is about as conclusive proof as your other experiments were. But is 21 days the longest period you ever knew in the embryo state?"

"No. The difference with cold weather is more noticeable than in hot weather. I have known very nearly 24 days to elapse with weak colonies and cold weather, while the bee was developing. But 21 days as the rule according to all of my general work among the bees during the past thirty five years, and this rule can be depended upon in governing all our methods of dividing bees, forming nuclei, and in breeding bees in time for the honey harvest; in all of which it is necessary that we should have some knowledge of these matters. And right here let me say, before I forget it, that the time of the year when the development of the brood is the most retarded by cool weather is in the fall; and when

most accelerated by hot weather is in June and July, when the bees are busily engaged in the honey harvest. The reason for this seems to be that the bees are very active during the fore part of the season, while they become more sluggish as the season draws toward its close."

"Are the embryo queens about the same time in developing?"

"No. They are just the same as regards the time for them in the egg form; and I believe all eggs are alike which are fertilized. Then they are from 5 to 5½ days in the larval form, and about 7½ days in the pupa form, or not far from 16 days in developing warm weather accelerating and cold retarding to the amount of perhaps half a day each way"

"I think I will try these experiments myself next season as I believe it is necessary for each bee keeper to have a thorough knowledge about all things which pertain to his pets."

Sacramento Valley Development Association Press Bulletin.

Sacramento, California' Aug. 29 '04
Shipments of California fruit to eastern points which had passed Sacramento this season to date aggregate 3330½ carloads as follows: Cherries 209 cars, Peaches 475 cars, Pears 1400 cars, Apricots 96 cars, Plums 990 cars, Grapes 150 cars, apples 6½ cars, Figs 2 cars, Total 3330½ cars

These figures cover almost the entire shipment from the state. The total is considerably less than that of to same date last year. The shortage is principally in apricots and peaches these crops being light throughout the State. Apricot shipment last year aggregated 231 cars, peach shipments 1866 cars.

Cherry shipments are approximately

the same as last year. Pears and grapes shipments to date exceed those of last year. Grape shipments have begun. The crop is heavy and of good quality. The pear crop is, unusually large. The prune crop is large and good quality.

Sacramento Valley oranges promise a good crop of excellent quality and with favorable weather conditions will ripen early as usual. Olives promise a fair crop of excellent quality in Sacramento Valley regions though short in some portions of the State. Almonds will be a short crop and almond prices rule correspondingly high. Fig are yielding a good crop. Cannery are using more figs and fresh fig shipments are increasing.

Fruit prices have as a rule been very satisfactory. Cannery have paid good prices for apricots and peaches thereby reducing eastern shipments. Pears have failed to maintain uniformly high prices, the heavy shipments operating at times to depress values. While this has been an off year in some respects fruit growers have as a rule done fairly well. Sacramento Valley growers who had crops are reported well pleased with returns and as the bulk of California's deciduous fruits are grown in this Valley this is true majority of growers in this state

The condition of the canned and dried fruit market is fairly satisfactory except in the case of prunes and raisins. The organizations which formerly controlled these crops have gone to pieces through disagreements and the results is a condition which threatens growers profits.

The grain crop is light, hay crop is heavy. In the irrigated alfalfa district of the Sacramento Valley the fourth crop of hay is now being cut with good prospect of two more cuttings. Hops are yielding heavy crops and prices rule high. Twenty five per cent and upward is offered for choice lots.

Incidents of a Queen's Life.

BY GUMPY.

"This is distressing," remarked the young queen, "that we should be deprived of the necessities of life at this time. What in the world am I to do with all this family, and not a morsel in the house to eat? Why; they will starve that is all. How I wish that I were back in my old home in the South, where I knew not what it was to be hungry. I wonder if it is ever summer here, it seems to me like the past week has been a century. I do not know why they brought me here anyway, of what use are bees where there are no flowers, and where its cloudy all day, and nothing but cold dreary weather. The sun has not shone enough, since I have been here, to dry off the porch," and as she sat, shivering in the midst of her desolate home, her face, for the first time in her life, wore the look of sobriety, for this was her first experience with poverty, as she had been reared in a luxurious southern home.

"It was with a light heart," she continued, "that I left my parental home, to which I now look back with intense longing, for they pictured to me abundant fields of basswood, and a home of my own where I would be "Monarch of all I survey," but imagine my surprise, when after several days journey in a stuffy little cage, which I had to gnaw out of, I was placed in charge of the rudest little dark complected chaps you ever saw. The whole outfit was entirely devoid of manners. Why! the first thing they did when I got out of the cage, was they all tried to hug and kiss me at once, like they had never seen a decent bee. I believe they would have suffocated me, if uncle Billy hadn't come to my rescue, and it was all he could do to get them off. He finally took the whole wad of us, and doused us into a bucket of

water; then the fools let me alone, but I was soaking wet, and I haven't got dry yet. Uncle Billy's the best friend I've got, but he seems to have deserted me now. O! how I wish he would come back, and bring us another cup of that good sugar."

"Never mind," yawningly remarked an old black drone, stretching himself after a doze, "the Lord will provide. You haven't lived in this country as I, or you would not be complaining yet. I have seen lots harder times than this. Why! I have sat here and sucked my paw for a week at a stretch, when there was nothing to be had, and never murmured. Contentment, my dear stepmother, is the boon of life. To it, more than anything else, do I owe my longevity. Yes! my ability to take things as they come, has enabled me to see hundreds of my sisters, worrying, buzzing and fretting their lives away. Not more than a week before you came, I sat here and watched at half of our number die from starvation, among them our beloved mother, but we just watched and prayed, and the good Lord answered our prayers, for in a day or so uncle Billy brought us some sugar, and as there were not so many to eat it, we had quite a feast, but we had no mother, and after all, "what is home without a mother," but we just watched and prayed again and the good Lord sent you in a few days."

"Yes; you lazy old reprobate," saucily says his small sister, whose sun-burnt countenance is evidence of an outdoor life, as she walked up and slapped him in the face. "If you men folks had worked like us girls did, while there was plenty of fruit blossoms, we wouldn't be in this fix now, but instead of that you all sat around here and ate everything brought in. I am getting tired of it, that's what I am. Here I've been out all day hunting for something to eat, come home

just tired out, and find my big lazy brothers laying around here saying, 'the Lord will provide.' Its alright to trust in the Lord, but don't I know that he only helps those that help themselves?" "Ha; Ha;" laughs the eldest brother who has been standing by with his hands in his pockets taking in the whole conversation, and who has the reputation of only seeing the funny side of a question. "If you think I can't help myself, you wait until uncle Billy brings another cup of that nice sugar and sets it in front of the door." "Shut up," angrily shouted a sister of uncertain age, as her gray locks were quite conspicuous, and she had crows feet around her eyes. "This is no time to laugh, better be praying for your daily bread, for if there's any this side of Heaven I can't find it, and if I haven't looked high and low for it this day, it aint me."

Just then a plump little girl in a brown dress stepped on the porch with a basket of pollen on each arm; her singing attracted the attention of them all at once, and they hurried to see what she had. "Where did you get it Brownie," said the old maid. "Down at the shanty at the end of the row, she replied. "Give me some," said the old black drone. "Me too," said the redheaded drone, as he tugged at her dress. "I wont do it," she answered, "this is for the kids" and she proceeded to empty it into a cell and pat it down with her head. Meanwhile her sisters had started out to see what luck they would have "sniping" and presently they all put in their appearance with heavy loads, and followed Brownie's example by packing it away in the cells, but only to be torn out and devoured by their greedy brothers, which no reasonable remonstrance seemed to check, and finally being vexed beyond all endurance, they resorted to brute force and a free-for-all

fight ensued in which the "women folks" came out victorious, and which did not subside until every drone was killed and piled out in front of the hive. To all of this the queen was an eye witness, and it was indeed a sight, which she had never previously seen.

"Little did I dream," she said, after quiet had been restored, "that I would ever be called upon to mother such a crowd of ruffians. I never saw such disgraceful conduct. It is useless for me to try to raise a family under such trying circumstances as these. We have nothing to eat and when we get anything, you all fight over it until it is all destroyed. I am completely discouraged," she continued, "and I shall not lay another egg, so there now," and she gathered up her long train, and she frisked off to a corner where she could be "alone with her thoughts."

"I know what's the matter," said a bright eyed little lass of sixteen days, "it all comes from robbing, thats what it does. I never knew anyone to get any good out of anything they stole yet, and one had as well expect to suffer the penalty for all their mean deeds, for it is sure to come sooner or later. Brownie had no business to take that honey, and I told her so. True, the moth had killed out the most of the family, but it wasn't our's all the same, and its been the ruination of us." "Don't be discouraged Mama Dear," said the old maid the following day, as she stepped in with an air of importance, and showed a basket of pollen, as she wiped the perspiration from her forehead. "I found a patch of flowers over in Simpkins pasture," she continued, patting her abdomen with her forepaw, "and got a belly full of nectar, to say nothing of this basket of pollen I gathered up where aunt Sarah scraped the bread pan, and its all right if it is artificial, so the kids wont starve yet awhile.

Come now sissy," she says as she finishes patting it in a cell, "feed the youngsters now while I go for some more, for thats all you are good for, till you get so you fly," whereupon sissy, who is a four-day old, abruptly stops the jig she has been dancing, and goes to the cell and dips her saucy head in, and then goes the rounds, sticking her 'bill' into every one of their wide open mouths.

But Lo! here is uncle Billy and everybody must get in the house out of the way of his big feet, and seeing the pile of drones, he exclaims; Ah! a surplus of drones here, we will fix that and off comes the cover, and out come the frames, and out comes uncle Billy's knife also, and when he puts the frames in their place again and goes away they find greatly to their astonishment that all the comb is gone from two of the frames, kids and all, and there are in its place sheets of wax, for uncle Billy has given them new foundation, in place of the drone comb. "Well, well:" exclaimed the queen, "such destruction I never saw, but really this is pretty wax, its so nice and clean, come girls; draw out some cells so I can have a comfortable place to sit." O! isn't this nice and straight," presently remarked the old maid as she finished the first row of cells. "I tell you old uncle Billy isn't such a bad fellow after all, is he mammo?" "No" said the queen, "he generally knows what is best for us, and when we get in a bad fix he generally helps us out."

While our little friends are employed in replacing the comb, we will give a brief history of uncle Billy's apiary.

It was in his early manhood, that Billy Willaims took a notion to bees and as he is one of that kind, that if a notion strikes him he loses no time in putting it into execution, it was only a few days later that he put in his appearance, one evening, with a box

containing a swarm of "Blacks," which he had, after much difficulty, and several stings, extricated from a hollow tree in the woods, and while his father did not express a decided disapproval of his new charges, it was evident that he looked upon the contents of the box, as scarcely sufficient compensation for the time spent in their capture. But uncle Billy provided them with as comfortable quarters, as the material at his command and his limited knowledge of their wants, would permit, and being kept pretty busy on the farm, especially during the summer season, he found only enough time to devote to them, as was necessary in hiving the swarms as they came out, and this was done in the rudest manner, a hollow "gum" being their usual abode. But regardless of their neglect, they increased from year to year, their only backset being, when the folks could induce Billy to "rob a gum" in the autumn, and it was not until he was married and settled down on his own little homestead, that he had time to take an active interest in his apiary, which had increased to 20 colonies. It was then that he began to find that they could be made to yield him some little revenue, and it was then also, that he found the more he learned of them the better they paid, and so his interest in them grew and he gradually worked into the bee business almost to the exclusion of everything else, and as is almost universally the case, when he turned his attention to the business, he began to improve slowly but surely, upon the method he had previously used. He finally had the courage to adopt a box in the place of the old "gums", for he found that he could handle them to better advantage, and after a while he subscribed for a Bee Journal. After reading it a year he began to think he was far behind the bee-keeping world, and be-

came enthusiastic enough to decide to try his hand at the "new fangled way" of keeping bees, to the extent of one colony at least. So he ordered one new hive, and transferred a colony from one of the boxes to it. This was late in the summer and the following spring, finding them queenless, he concluded to order an Italian queen and introduce her, and that he carried out his intentions and was successful, the reader is aware.

(Continued next month.)


Some New Experience.

W. H. RITTER, SPRINGFIELD, MO.

I have been a bee keeper for over 30 years here in Green Co., Missouri and have had good and bad years. One fall about 15 years ago I had a bad case of robbing among my bees, one afternoon they got started on the war path, the air was full of bees for two hours, they stung everything that was moving, all we could do was to look out the window at them and wait, they run every cat, dog and chicken to the woods. Our kitchen has a porch on the west, and a pantry on the north end of porch; we had about 20 cases of honey in the pantry, one evening about two weeks ago I had been away from home about two hours, when I got home it was quite a bit after sundown; in fact nearly dark, I heard the bees roaring at a terrible rate in the house. I rushed to see what was up and found Mrs. Ritter with smoker in hand, bravely doing best she could to save the honey in the pantry. She had a stream of bees a foot wide trotting out of the pantry across the porch to the screen door; there was just millions of bees in the pantry after that honey, well it took us two hours to get those bees all out of the house. She had loaded and burned out the smoker three times when I got home.

It was a big fight but she stayed right with them till I got there; they got away with about 10 lbs of our honey. Well I don't blame them, they made it and they thought they had more right to it than I did. I had kept honey in that place for years and I never had any trouble of bees getting in there before. In all our hard work to get them out we did not get stung they did not seem to try to sting; early the next morning they were out after more of that honey, but we were there ready for them, they were soot thick on the wire screen out side the porch, here Mrs. Ritter thought she would fix them so she got a rag wet with coal oil and rubbed it on the side of the wire screen; that fixed the bees left mighty sudden.

In my long experience I learned that we have to exercise great caution the close of the season when we take off the surplus. I always do that late in the evening near sundown, when I take off a case the honey is broken and the bees smell it all over the yard and if little or no honey is coming in, they sets them a going and if its late in the day when we do this they do not have time to make much trouble till its dark to fly, by morning everything is licked up in each hive that's been opened. Our honey crop this year is short only about half a crop, too much rain and cool weather. During August I took a trip to southern Kansas and Oklahoma, while there I made inquiries on every occasion possible to learn I could about bees in the alfalfa tracts, they are doing well everywhere near the alfalfa fields. A young bee keeper near Englewood, Kansas gets 200 lbs from her best colonies see its honey time all summer you have alfalfa.

 The Progressive Bee-Keeper
be interesting reading for you this
ter. Only 50c per year.

Dr. Miller's Answers.

DIVIDING—QUEENS IN THE MAILS— EXTRACTING-COMBS—DRAWN FOUNDATION.

1. I have 12 double hives full of brood and honey (in both stories). Would it be advisable to divide them, giving one a young queen? I would like the increase.

2. Does it injure a young queen-bee to be sent through the mail this time of year.

3. Can you give any suggestions to a novice as to how to find the queen?

4. Is there a way to get combs for extracting next summer before the flow?

5. How can I get the bees to draw out foundation (wired frames)? IOWA.

ANSWERS.—1. Getting pretty late for that sort of thing, especially for a novice; so it might be well for you not to try it on to many.

2. This time of year is probably as good as any. Some times a queen in badly injured by a journey through the mails while often she seems none the worse for it.

3. Experience is the best thing. After some practice you'll spot a queen on a comb very readily. Don't do anything to set the bees to running. If they get to running, you may as well close the hive till another time. The two things most likely to set them to run are too much smoke and too rough handling. So use just as little smoke as will keep the bees under subjection, and be slow and gentle in all your movements. G. M. Doolittle says that from 9 o'clock till 3 the queen is most likely to be found on the outside comb that has brood in, either on one side or the other. If you lift out two or three frames and set them in the empty hive, that gives you room in the hive to glance over one side of each comb before you touch it at all.

That is when you lift out a frame, before carefully looking it over, glance over the exposed side of the next frame in the hive. Often you may see the queen thus in the hive, when with gentle haste you will put down the frame in your hand and lift out the one with the queen. After looking over the combs two or three times without finding the queen, it is generally as well to close the hive till an hour or two later or till another day.

4. You can get combs drawn out only when the bees are storing, either from the natural flower from feeding and even then they will draw no faster than they fill them.

5. Just the same as getting any combs drawn out, by giving them to the bees when they need them to be filled either with stores or brood.—The American Bee Journal.

Queen Entering Wrong Hive on Returning from Bridal Trip.

1. What are the signs, indications and manners of bees when they are disposed to accept a strange queen? and what are their manners when they are not?

2. I find that one of my colonies has mixed bees in it, and evidently has a different queen from the one that has been in the colony all along. My hives set in rows 15 feet apart, and are set in pairs in the rows. There are about 80 in all. Last April I placed a Carniolan queen cell in a hive of a native that I found queenless. Shortly afterward I examined the hive, and found that the queen had hatched. A month or so after this I had occasion to examine this same hive, and I found it queenless again. I supposed the young queen got lost while off on her bridal trip. About the same time I discovered that a hive that sat in front of this same queenless colony had

mixed bees in it, and on examination it was evident that a different queen had entered it, for about half of the bees were of a different race, and resembled hybrid Corniolans. What do you think of that? A young queen returning from her bridal trip and entering the wrong hive! Is it possible that bees under such circumstances will receive a strange queen? Could it have been that this particular colony was queenless at the time, and in a mood to receive any queen that might come along? All of the bees in these 80 colonies are brown, with the exception of two colonies, and these have old, fertile queens in them—one a Carniolan and the other an Italian. These two queens would have no occasion to leave the hive, except to swarm. And there is no possible way in which a queen could have gotten into this hive in any other way than the one I have mentioned. Please tell me what you think of this. MISSISSIPPI.

ANSWER. 1. A sensible question yet one that hardly needs to be answered to those with some experience for I suspect that as good a guesser as your next question shows you to be would readily judge as to the behavior of the bees without being told. If the bees are kindly disposed to the queen, they will appear to stroke and caress her perhaps climbing over her at the same time, but no one will take hold of her. If hostile, they will grab hold of the queen, and appear as if trying to sting her—in reality they will not sting her—and if every unfriendly one after another will seize the queen till there is no room for any more to get hold of her, when they will seize the bees that have hold of the queen, and you will then have a case of balling the queen. Then you must release the queen, either by throwing the ball of bees in the water or by blowing on them smoke that is cold; for if you hold the smoker close

enough to blow hot smoke on them you will make them sting the queen.

2. Yes you have made a right guess. A young queen may enter the wrong hive; and what's more, even an old laying queen may of her own accord change her domicile, issuing with a swarm and then entering the wrong hive.—The American Bee Journal.

What Ails the Bees? — Introducing Queens.

1. What is the matter with bees when in coming out of the hive (that is in the late autumn, midwinter and early spring), they pass large quantities of a thick yellow matter on the front board of the hive, sometimes like long thread?

2. What is the best and easiest way to introduce a queen?

3. Which is the best time to introduce a queen just before swarming season or immediately at its close?

—NEW ZEALAND.

ANSWERS.—1. They are merely emptying the contents of the intestines, which accumulate when they are confined for any length of time.

2. There are so many best ways that it is hard to say. Besides, even the best of the best ways is likely to be a failure sometimes, for bees are freaky things. There is, however, one way by which you may be successful without fear of failure. Have some combs of hatching sealed brood—one way of getting them ready is by putting combs of brood mostly sealed over and excluder for eight days or more. Put these frames of brood in the hive without allowing a single bee with them, and put in your queen closing up bee-tight, and keep in a warm place for five or six days. Then set the hive on its permanent stand, leaving the entrance for a few days only large enough for a single bee to pass.

3. That depends upon circumstances

and your own desire. It is better to choose a time when honey is yielding well, whatever the time of year. Other things being equal, perhaps as good a time as any is near the close of the honey harvest. Less danger then of interfering with the harvest.—The American Bee Journal.

The First Americans at the World's Fair.

Who were the first Americans is a question asked by the thoughtful people. At the World's fair the question is answered in a most satisfactory manner. The first Americans were the Cliff Dwellers of the Grand Canyon of the Colorado river in Arizona. Their beginning is lost in the maze of legend and tradition but in their decendant, the Mokis, Zunis, Pueblos scientific speculation finds a groundwork of fact much of what otherwise nameless Cliff Dwellers must have seen has become known to us. That the inhabitants of the table lands or mesas of the Unknown West were a skilled, peaceful and religious people is attested by relics which their decendants, the Mokis, Zunis and Pueblos have brought to the World's fair, where at the Cliff Dwellers Concession they show not only a sample of every prehistoric implement of wars and peace found in the Cliffs and caverns of the of the Colorado Painted Desert as they call their home, but also the idols of their ancestors and the mummified bodies of several of them. About three hundred of these strange people are housed at the Cliff Dwellers Concession in a perfect representation of the Pueblos of Taos in New Mexico from whence they come. Here they live precicely as at home and their lives are the wonder of the world's fair visitors. From babies three weeks old, born on the World's fair grounds to men over 100 years of age, the

Mokis, Zunis and Pueblos at the Cliff Dwellers Concession form a congress of native Americans about whose right to be called native Americans there can be no dispute. In addition to their home life, every detail of which is shown, they present all deeply religious ceremony, their Elk, Eagle, Buffalo, Kiote, and Courting Dances, concluding their daily performance with most startling act to be seen at the great World's fair: the Snake or Rain Dance. This is pronounced the most stirring dance in the world.

Many Turn to Agriculture.

The number of students now enrolled in Missouri Agricultural College as first year men is just twice the number enrolled in the same work at a corresponding day after the opening of the College last year. The sudden increase in the first year class seems to indicate that an unusual large number of young men are for some reason turning so agricultural persuits. Mr. Geo. B. Ellis, Secretary of the state Board of Agriculture, is much grafified by the changed public sentiment of which he thinks this is a barometer. "This big class indicates," he says, "that people are beginning to look upon agriculture as a promising profession and the young men are accordingly preparing themselves to succeed in it."

A Student Dies.

Leonidas Leffler, a student of the State University from Maryville, Missouri, died of typhoid fever last Friday afternoon. He had been taking an active part in football practice till about ten days before his death when he gave up this because of a slight indisposition he said he felt.

The Progressive Bee-Keeper.

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The Convention At St. Louis.

S. E. MILLER.

Your humble servant had the pleasure of attending a part of the time at the Bee-keeper's Convention recently held at St. Louis, and as it was the first and only Bee-keeper's Convention I ever attended, perhaps a few remarks concerning it may not be out of place here. First of all it was a great pleasure to meet face to face many of the old friends whom I have known and loved so long, by reputation and from reading their writings for the bee-keeper's press, but whom I had never before had the good fortune of meeting. Any one who has read Stray Straws and seen a photograph of the author would recognize the kindly face and the genial spirit of Dr. C. C. Miller. I was somewhat late in ar-

iving at the morning session on Thursday the 29th and Mr. Whitcomb of Nebraska was the first one to come forward and give me the hand of welcome, and afterwards introduce me to several of the shining lights in Bee-dom. From what little time I was with him, I should take Mr. Whitcomb to be a staid old gentleman of sound judgment and first class business ability and while not impulsive or over familiar, a staunch and true friend of those deserving his respect. Among the editors I had the pleasure of being introduced to Messrs. Root and Hutchinson, I also saw Mr. York but in some way I was not fortunate in having an introduction to him as no opportunity seemed to offer.

Mr. Hutchinson looks very much like he writes and anyone who has followed his writing and seen his picture would be able to pick him out of a crowd. Looking into his face anyone who has studied human nature would take Mr. Hutchinson to be a man who looks on the serious practical and business side of life rather than on the jovial, and yet a man who is happy in making others happy and contributing to their own well being.

Editor E. R. Root has cut off those whiskers in which we are accustomed to seeing him occasionally in Gleanings and other bee journals, and I would not have known him had he not been pointed out and afterwards introduced. To meet Mr. Root and not know anything of his history one would take him to be a clear cut practical business man, keen, sagacious and strictly up-to-date. If he will pardon the expression I will say without meaning to give offense, that some might pronounce him a blue-bellied yankee. Withal Mr. Root is a gentleman of pleasing appearance, elegant bearing and a friendly nature. One whom we need not know long to feel that we are true friends. Alto-

gether Mr. Root is the right man in the right place, for having been raised an editor he is fully capable of filling the position. If anything that I have said above sounds derogatory rather than favorable, I wish to say it is not meant so. There are a number of others of whom I should like to make a kindly remark, but space will not permit.

Some Things I Noticed at the Convention.

It is probably not possible at a Bee-keeper's Convention to have a continuous lively and interesting discussion or to have a continuously interesting address delivered, or paper read; but it occurs to me that what little time I attended the meeting there was considerable time spent in motions and in offering thanks to some one for an address, that was in itself a loss of time. This may all be parliamentary but I believe it is not according to the tastes of the leading bee-keepers who go there with the expectation of learning something new under the sun, and who at the same are better prepared to disseminate than to receive knowledge. Have you ever enjoyed a fox chase? If you have you know that when the hounds are on a hot trail and each one is giving out his deep mouthed bays to the full capacity of his lungs, the chase is intensely interesting, but when they loose the trail and you only hear an occasional yelp from one of the hounds it becomes dull and uninteresting. Perhaps this is rather a ridiculous comparison, but there is a similarity in certain respects. I like to hear the hounds in hot pursuit. I noticed a tendency on the part of some bee-keepers of minor importance to rise up and offer their opinions when men of upper years and greater learning were discussing a certain subject. Usually their opinions or suggestions were old or unimportant, and while

they were giving their opinions, men whom we should have liked to have speak on the subject were obliged heard to sit down and listen. I do not mean by this that the man who has not a reputation as a leader among bee-keepers may not have ideas and suggestions that are valuable to the bee-keeping public, but I do think that before rising up and occupying valuable time one should consider well whether his ideas are likely to be of value to his listeners or whether they are only fads or Jet theories of his own, that have grown to great proportions by his brooding over them and deciding that he has hit upon an idea that is new to all beedom. Several times I was tempted to rise up and offer my opinion on certain subjects but knowing that there were men there more capable of handling it I refrained from so doing. Some wise man has said, that a good listener is better than a poor speaker, and I believe that he was more than half right.

Queen Excluding Honey Boards.

One of the subjects brought up at the convention was, Shall we use queen excluding honey boards in the production of extracted honey? I think the most of those who replied to the question claimed that excluders were not necessary and the question was dropped with this opinion apparently prevailing. At this point I was very much tempted to offer my opinion but did not. I will here put the question in another form and endeavor to answer it myself. I should say. If queen excluding honey boards are not necessary in the production of extracted honey. what are they for? Certainly they are not of any use in the production of comb honey, At least they are not in my location and a honey board of any kind in the pro-

duction of comb honey is a nuisance with me, but in the production of extracted honey it is a positive necessity. If I put on a second story of full combs and use no excluder the queen is sure to go up and occupy the upper set of combs, and in most cases the bees are inclined to desert the lower combs. If I add the third story the queen will go into that. By using an excluder the queen is confined to the lower story and the bees store the surplus, if there is any in the set of combs above, thus giving me solid combs of honey without any brood to contend with when extracting but if the queen has access to these combs some of them at least are sure to contain brood, and when honey is as ripe as it should be when taken off the hive it is so thick that it is impossible to extract it without throwing out the greater portion of the unsealed brood. Then what a pretty mess we have, the unsightly grubs floating in the honey are not a tempting sight to the visitor who may happen around when we are extracting. They must be strained out and if we are not careful some may be mashed and their essence mixed with the honey. In addition to this we have lost just that much brood which is certainly poor economy. I do not know how it may be in other localities, but with me excluders are just about indispensable in the production of extracted honey. Another point of considerable importance is that bees are harder to get off of combs containing brood than from those containing honey only, and if we attempt to get the bees out of the upper story by means of a bee escape it simply will not work, at least it don't at Bluffton. Young man if you will take my advice use a ten frame hive and a queen excluding honey board in the production of extracted honey.

Getting Bees Off the Combs Without Brushing or Without Escapes.

I believe I gave this about a year ago through the Progressive but at the risk of repeating I will give it again as I consider it of value. I presume that nearly all bee-keepers know that if there is a time when bees are vicious and dead bent no stinging, it is in the late Autumn when there is little or no honey coming in, and to attempt to take the combs from the hive and brush them one at a time is a task that takes considerable nerve. To avoid this I have an assistant to use the smoker, go to a hive, give a few puffs at the entrance, pry off the upper story place it on the wheel barrow remove the excluder and put on the cover, this is all done so quick that the robbers have not discovered which hive you are working on. Have the assistant keep a watch on the honey on the wheel barrow and smoke away any robbers that may attempt to pelt. When the barrow is loaded wheel it into the honey house and stack the hives up near a screen door having an escaper. It would be better if the door had several escapes, let each body extend a little over the end of the one beneath it, so that the bees may escape without going clear up to the top. In this way you can pile them up six or seven high and almost as close together as the hives will stand. The bees will collect on the screen faster than they can escape and when quite a number have collected on it push the screen door partly ajar and strike it on the inside with the hand, this will dislodge nearly every one. Be quick about it and close the door before many robbers can enter, for they are sure to be there looking for a chance to enter.

When writing to advertisers please mention The Progressive Bee-Keeper.

Hamilton County (Ohio) Beekeepers Association.

The annual meeting was held in the Convention Room, Grand Hotel, Cincinnati, Monday evening, September 12th., at 8 p. m., when the following officers were elected for the ensuing year:

President.....Fred W. Muth.
Vice-President....John C. Fronliger.
Treasurer.....G. Green.
Secretary.....Wm. J. Gilliland.

Executive committee—R. L. Curry, A. E. Painter, C. Kuck, E. P. Rogers, E. H. Chidlaw, Wm, McLennan, E. H. Vaupel, Theo. Meyer, Wallace Burch, Dr. A. B. Barker, Wm. R. Gould, Miss Carrie Boehme.

The secretary presented his report as follows: The executive committee has much pleasure in presenting their second annual report, which indicates a continuation of the prosperous condition that has been shown since the organization, a marked increase in membership, and a continued influence among bee-keepers in the immediate neighborhood, county, and adjoining States.

The most important event of the year, was the enactment into law of a bill for the treatment of Foul-brood, and the appointment of a Foul-brood Inspector under its provision. The promotion of this measure was undertaken by us. Valuable assistance was rendered by the Hamilton County Representatives, led by Mr. D. R. Her- rick, who took charge of the measure in the House, and exerted his influences in pushing the bill to its final stages and ultimate passage. This is the first attempt at Legislation in the State of Ohio, in the interests of the Bee Keeping Fraternity, and the Hamilton County Bee Keepers may be termed the Pioneers of Bee Legislative Measures in the State of Ohio. Next matter of importance in which we were

instrumental in advocating, was the addition of a honey-schedule and premium list at the Hamilton county Fair, at Oakley, Ohio. Quite an exhibit of extracted honey in jars, comb honey in sections and supers, were exhibited, and substantial premiums were awarded to competitive members of our association. It is a fact that we regretted that more bee keepers did not avail themselves of this opportunity to compete. We would remind them to make preparations early next year, and make a good showing, that would be alike creditable to the bee-keepers and to the influence of this society.

The year ends with fifty-eight subscribers on the roll of membership, as compared with forty seven last year, an increase of fully twenty five per cent. This increase is made up principally of practical bee-keepers, who manifest a desire to learn the best methods in modern bee keeping. During the year, now ended, were held twelve regular and four special meetings, making sixteen in all. The attendance of the members was a very good average, considering the variable weather, and long distances a great many of the members had to travel to attend these meetings.

WM. J. GILLILAND
Secretary.

Solve the Problem.

I am not at all sure I can solve it, but will simply give the facts and my view of the matter knowing there are many wiser heads than mine in our great "Bee keeping World," and hoping to hear from all of them, through the friendly pages of the PROGRESSIVE I thus place it before the public.

I had a fine queen to get killed on or about May 15. The bees went to work straightway to rear another, and at least a dozen cells was drawn out over

the young larva for that purpose. I was fixing to move from that place, and did not care to move the bees 500 miles, yet I did not want to lose out on my bees, so I sold the main hive, only keeping a three frame nuclei, fixed up in a shipping case, one frame containing two nice looking cells. I caged them up on the night of June 1 and one hatched out before morning. I started with them on my journey June 2, arrived here on the 4th and having no hive to put them in, I bored a couple of holes in one end of the case they were in, wrapped it up in a piece of duck and some bran sacks and there they had to remain till I could give them better accomodation. They were opened up on the 6th and found in good condition. The weather was fine, and the young lady should have taken her flight, about the 7th or 8th, Perhaps she did. I was not watching, but I saw no signs of such being the cas, on June 12th but the last drone was gone. About the 20th she came out, tried her wings and went back. I looked every few days for eggs, but after July 4th I give up all hopes of ever finding any; for she was now 33 days old. I never knew even a virgin to go that long without laying a few eggs; so I had to believe my fine looking queen was no good; having no other hive to draw from, I feared to lose them entirely, but I sent to E. J. Atchley for another one and he had just left Beeville, enroute to Littleton, Colo., when my order arrived there, and after following him up at the elapse of about three weeks, I received a queen from him. When I went to introduce her, which was about July 25th, I found the middle frame full of eggs, larva and even ceiled brood. I tried to find some fault with them, but could not. There was only one egg to the cell and each one in its place; then I tried to think they were drones though I knew they were in

worker cells and the young queen as beautiful and active as any I ever saw, I hated to kill her, but fearing to risk her any longer, I pinched her head off, dropped her back in the nest and introduced the one from E. J. I gave the brood ample time to hatch, then peeped in half expecting to find a hive full of drones; but no not one; though the working force had increased and they were all well formed and active. Now for my theory; you understand they were still in the shipping case; our days warm and nights cool to my mind. there-in lies the problem. Small room, little feed, though I gave them sugar syrup still less to be found in the field; and cool nights, was enough to set them thinking. Now to sum it all up into one word, discouragement seems to fit it best, for the new queen did not seem to do much better. Now let us hear from some of the rest and oblige.

Yours Truly,

JOSIE WEBB.

Henry L. Miller Dead.

Died, Sunday evening at nine o'clock p. m., at his home in East St. Louis, Ill., Henry L. Miller, aged thirty-eight years.

Mr. Miller has managed a branch house for the Leahy Manufacturing company for about eight years. He was honest and upright in all of his dealings. The friendship and love that ripened years ago between our directors and Brother Miller were fraternal indeed. He leaves a wife and five children who have our sympathy in this bereavement.

It is our understanding that the business at East St. Louis will be continued as heretofore by Mrs. Miller and her oldest son, Clarence.

The Progressive Bee-Keeper
is worth 50c a year to you.



CROWD AT UNITED STATES GOVERNMENT BUILDING.

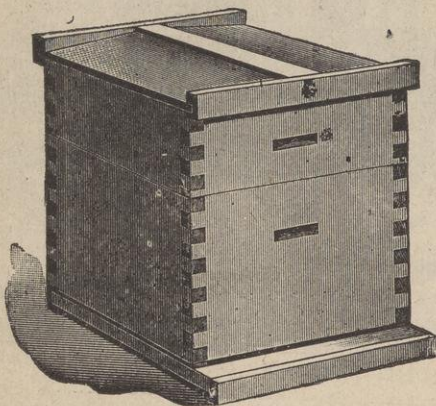
When to Build a Creamery.

The creamery swindles that are now being worked in various parts of Missouri when they have been exposed will probably make communities really adapted to dairying over cautious about engaging in the business. Professor R. M. Washburn of the Missouri Agricultural College who has had wide experience in the creamery business gives the following information that will help communities to determine when it is wise to build a creamery:

"Whenever the milk from four hundred cows cannot be guaranteed within a radius of five miles," says Professor Washburn, "the creamery had better not be built. The cost of making a pound of butter will be about six cents and no farmer com-

pany can stand such expense. If five or six hundred cows can be secured in the five mile radius the cost of making a pound of butter can be reduced to 3 or 4 cents which is a profitable basis of business and the creamery will benefit the community. A good little creamery that can handle this amount of business can be built and equipped for \$2,000 or \$2,500 if the company will let the "creamery promoters" also and buy an outfit of some reputable dealer. If a cheese factory is for some reason preferred for the same number of cows it ought not to cost more than \$1,000 or \$1,200. As a rule it is better for the farmer to send his milk to a creamery already established even if he has to haul it farther as this will help to increase the output of the plant and lessen the cost of making a pound of butter thus enabling the concern to pay a higher price for butter fat."

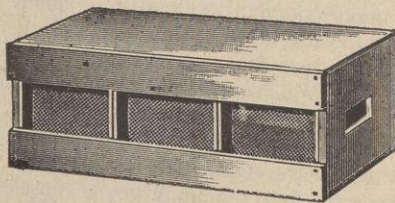
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They work for nothing and board themselves, and require but little time to handle. We have just received a carload of the famous "Higginsville" Supplies, consisting of

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TOPEKA BEE SUPPLY HOUSE,

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The Bee-Keepers' Review

CAN HELP YOU MAKE MONEY.

Opportunities for making money out of bee-keeping were never greater. If the bee-keeper with a single apiary, from which he makes a living in a good year, and nothing in a poor year, would only arouse himself to the

CHANGED CONDITIONS,

secure a good location, if not already in possession of one, adopt such methods as will enable him to branch out and manage several apiaries, he will find that in a good year he can

PILE UP HONEY

ton upon ton—enough to support himself and family for several years. The Review is helping bee-keepers to accomplish this very thing.

THE FIRST STEP

in making money as a bee-keeper is the securing of a good location; and Review even goes so far as to discover and make known desirable, unoccupied locations

GET GOOD STOCK,

Having secured the location, the next step is that of stocking it with bees of the most desirable strain; and, having had years of experience with all of the leading varieties of bees, the editor of the Review is able to, and does, tell his readers where to get the best stock. Still further, the Review tells how to make

RAPID INCREASE.

how to build up ten or a dozen colonies, in a single season, into an apiary of 100 or more colonies.

Having the location and the bees, the bee-keeper must learn how to manage them so as to be able to establish an out-apiary here, and another there, and care for them with weekly visits—yes, by monthly, or even longer, visits, when extracted honey is produced. It is in teaching bee-keepers how to thus

CONTROL SWARMING,

that the Review has been, and is still, doing its best work. If a man only knows how, he can care for several apiaries now as easily as he once cared for only one.

Having secured a crop of honey, the next step is that of selling it. This is the most neglected, yet

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from Maine to California, and is thus able to secure, as correspondents, men who have scattered out-apiaries widely, managed them with little or no help, and made money. These men are able to write from actual experience—they know how they have succeeded, and can tell others.

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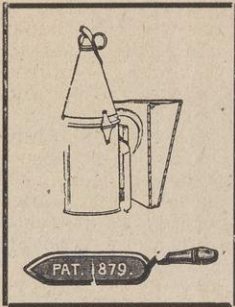
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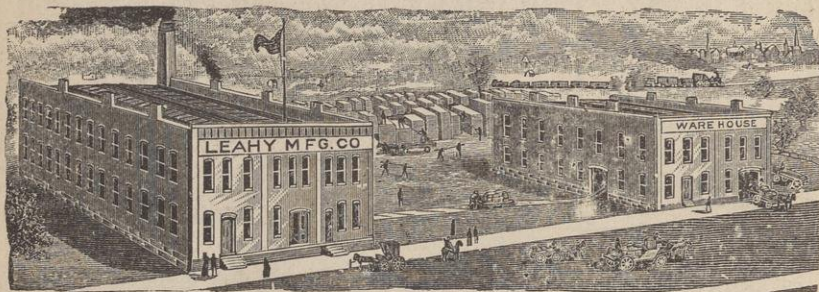
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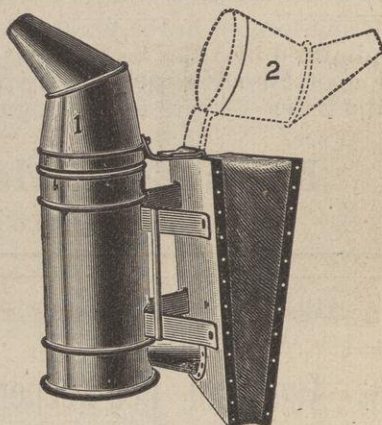
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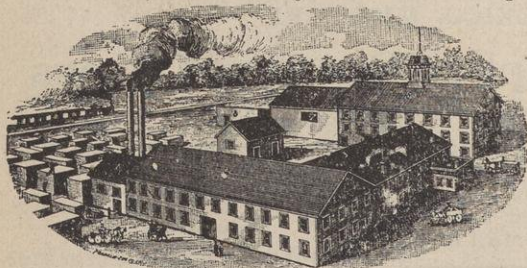
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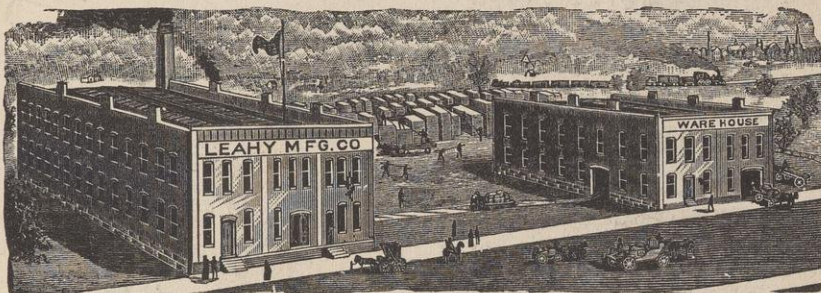
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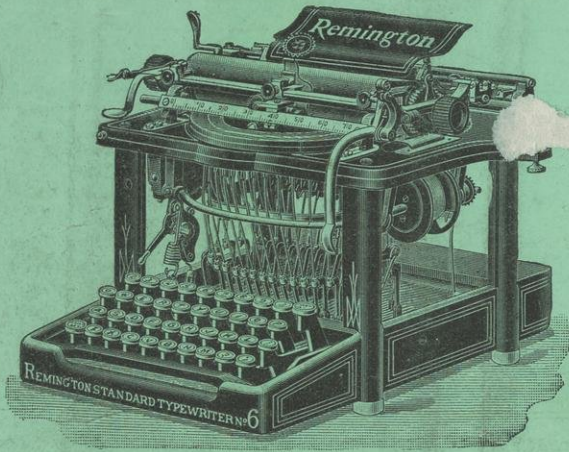
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