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SEPTMBER 1903

PROGRESSIVE BEE-KEEPER

A JOURNAL DEVOTED TO BEES, HONEY AND KINDRED INDUSTRIES.



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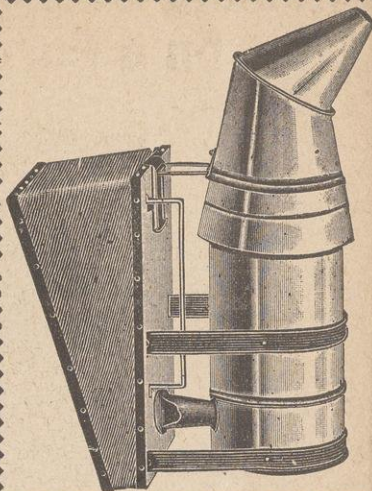
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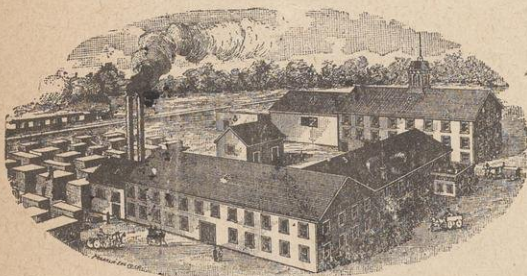
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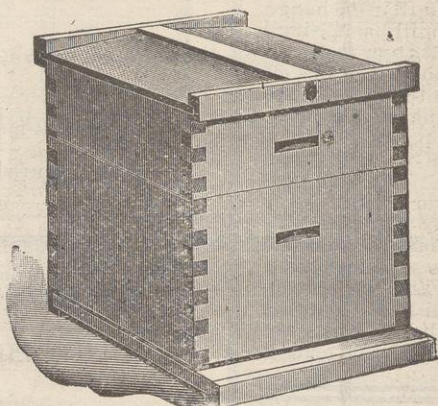
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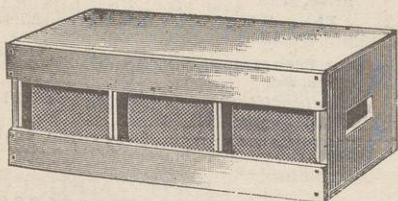
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The Progressive Bee-Keeper.

A Journal Devoted to Bees, Honey, and Kindred Industries.

50 Cents per Year.

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GOOD THINGS IN THE BEE KEEPING PRESS

SOMNAMBULIST.

No doubt about F. L. Thompson knowing a good thing when it is in sight. Don't know whether to be suspicious of him or not. Think you he could possibly be fishing for my job? Anyway he has been casting insinuations about my falling so far short of my duty, and now he has undertook, like a good brother, to help me out. No apologies needed, rather thanks due from this quarter. Impossible to give

all the good things "in the bee keeping press."

Selling time is now here, and let every honey producer keep in mind that a good front is a sure stepping stone to success. Our beekeeping writers talk of the delicate flakey white comb honey until the mouth begins to water, and we can almost feel said honey melting away, as a sweet morsal beneath the tongue. But the producer offers his product for sale, he too often talks and acts as if he was half ashamed of his business or that which he has to offer.

If such over-modest ones could lay aside the mien of a beggar (with which they most assuredly have no right) and assume the role of a benefactor (which just as assuredly belongs to them) success would attend them, and, as Napoleon wept because there were no more worlds to conquer, they, too, could weep because of their job being so short lived.

To these faint-hearted ones it does not seem to have occurred that pure honey is a delectable article, and one which people are delighted to secure, paying for the same willingly.

In this, as in all undertakings in life possess yourself with an unflinching belief of your own possibilities and

success stands ready and eager to crown you.

Opposition may face and difficulties surround you, yet with this faith within you will prove intrepid. Claim success as your birthright. Why not, when it is the natural birthright of every man. Alas! the Esaus are not yet all dead, as is evidenced by many selling their precious birthrights for, if not a mess of pottage, like equivalents. Meaningless, worse than useless lives. Too true, the "might have beens" are a multitude. Shall any of us, by a little inactivity, a little shirking, a little more sleep, a little more slumber, join this army of failures? Or shall we, by the force within, rise to our rights and scatter the specters of doubt and fear and go forth conquering adverse circumstances, and demonstrate we were born to succeed.

Uncle Reuben says: "Any fule kin kick again sarcumstance, but it am de wise man that conquers misfortune an' doubles up his fist to tackle adversity. Dar' am a streak of selfishness running all through the human race, but in some cases it am artfully concealed. Fur instance, when a man rubs his back agin a freshly painted doah, de owner of de buildin' purtends not to keer how much of it he carries off on his back."

In the matter of selling never offer anything but a good quality and you can always afford to "keep a stiff upper lip" when out marketing.

An item from an exchange fully illustrates. The subject of this sketch is butter, but the moral to be learned is equally applicable to not only honey, but all farm commodities:

"A few days ago two farmers came to town, and both brought butter for sale. One of the farmers had his product pressed into neat compact half-pound packages, and he readily sold it at 25 cents a pound. He told the Her-

ald man that he could not meet the demand for his butter. The other had his butter in a bucket and it looked soft and watery. After tramping around town from place to place trying to sell, he gave up in disgust and said it was no use to bring butter to town to sell as nobody would buy it. Guess the moral."—Palestine (Tex) Herald.

Under the caption of "Keep Up Your Enthusiasm" the editor of the Review contributes the following:

"Enthusiasm is needed in any business. But little can be accomplished without it. The man who goes to his work with leaden feet, and no interest in his work, is sure to fail. Enthusiasm, well directed, almost insures success. Many a task or enterprise is begun with great enthusiasm, only to go down, as enthusiasm wanes. If only the enthusiasm of the beginning could be kept up, business would hum."

That's just it; use the same energy and enthusiasm in the selling field that has already been brought out in the producing field, and before you are aware of it, your honey has been disposed of and you find yourself looking around for honey from your neighbors, with which to fill your inflowing orders. In another paragraph this editor adjures us to "wake up to our opportunities which will be here reproduced. But first let me say in the matter of selling, I am fully convinced many beekeepers have never wakened up to their opportunities. His awakening horn is sounded along another line:

WAKE UP TO YOUR OPPORTUNITIES

A man with a single apiary sometimes has to have his eyes opened pretty forcibly to the opportunities lying about him, before he realizes and improves them. A young man in Northern Michigan had managed a single apiary for several years, with little heed to the grand localities lying all about him. Finally some one located an apiary three miles from him and

harvested 8,600 pounds of comb honey the first season—8,000 pounds that this first comer might have had if he had only thought of putting an apiary out there. This opened his eyes, and he is this year managing 250 colonies, in three apiaries, and harvesting more than ten tons of honey."

And be it remembered the discovery of opportunity is but the beginning, opportunity must be embraced and embraced in no half-hearted way. The old adage "none but the brave deserve the fair" applies here. Also "weak heart never won a fair lady." But delving within and searching for one's own resources develops strength and in the end leads on to victory.

Along how many other lines think you we are to our interests? In American Bee Journal among Dr. Miller's answers we find:

"You say you haven't much time to spend with queens. Pardon me for saying that if you have time to spend with bees at all, you have time to spend a good share of it in rearing the very best queens, seeing that a queen is the very soul of the whole colony. Good queen, good colony; poor queen, poor colony."

Editor York has made it a practice to give views of apiaries. One situated in Australia greets us in an August

number. It's a modle of neatness, but it's presumable that apiaries like folk put on their best when about to have their picture taken. I am still young enough to greatly benefit from pictorial instruction and glean points from many of these illustrations. The idea taken from this particular one is one of the men wears a long apron reaching from the shoulders almost to the ankles. It is without sleeves and the straps passing over the shoulders form a V shaped neck. This is not the first praptical point I've discovered in the illustrations. One other showed the doors of the honey house wide enough to admit a wagon and arrange on opposite sides so that a team might pass through the building. A capital idea where crates or supers of section honey are hauled from out apiaries into headquarters, to be sorted and cased for shipping.

TEXAS QUEENS

From the COTTON BELT APIARIES. I can promise you queens from three distinct strains: viz. Root's Longtongued or red clover strains, Imported or Leather Colored Stock and my strain of Goldens. My Goldens are as good as the best; the best bees for comb honey I ever saw. Try them and be convinced. Queens ready to mail now.

Price of queens:

Untested, any race, 50 cents.

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Tested 75 cents. Select Tested \$1.00.

Breeders, the very best, \$3.00 each.

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| Selected untested..... | 1 25 " 6 " 6 00 | 1 00 " 6 " 5 00 |
| Tested..... | 2 00 " 6 " 10 00 | 1 50 " 6 " 7 25 |
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| Best money can buy..... | 5 00 each | 3 50 each |
| 2 frame nuclei with selected untested queen \$2.75. | | |

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KEEP COLONIES ALWAYS STRONG.

BY S. E. MILLER.

So much has been written by different writers on the subject of raising what they term useless consumers, viz: bees that will become of the proper working age at a time when there is little or no nectar to gather, and, therefore, consume rather than add to the amount of honey in the hive, that the beginners might be led to believe that there is great danger of having their colonies too strong at certain seasons.

Mr. G. W. Doolittle is one of those who has frequently written on this subject in the past, and I have no doubt that in his locality it is well to guard against having the colonies too strong at a time when there is nothing for them to do, for he is a very close and careful observer, and probably makes as few mistakes in the management of his bees as any bee-keeper in the land. However, there is such a vast difference in different localities that the rule that will apply to one may be entirely wrong for another.

Where the flow of nectar is strong and of short duration it is probably best to discourage, rather than encourage, brood rearing after the honey flow has commenced, for in this case the bees that are raised during the honey flow will certainly be of little or no use if a dearth of honey follows. On the other hand should the flow continue for a longer time than the bee-keeper expected he would be sadly disappointed to find his colonies weak owing to his having curtailed brood raising at a previous time so as to prevent the rearing of so-called useless consumers.

Probably I can best explain what I mean by giving a description of my own locality, or rather of the honey resources of the same. First I will state that I never have those phenomenal

yields that I frequently read of. Such for instance as Dr. Miller has had recently. I seldom have to use more than two supers (56 sections) on a hive at one time. Even in the height of the white clover or basswood flow the record of my best colonies does not exceed ten or twelve pounds per day on colonies run for extracted honey, and where they are furnished with empty combs. Taking into consideration cloudy, cool and otherwise unfavorable days when the bees gather little or no nectar it brings the daily average per colony down to probably three pounds per day during the white clover flow, which usually lasts from 15 to 20 days. It will be readily seen that were this my only resource it would hardly pay me to keep bees in this locality. However, I seldom fail to receive a fair to good crop of honey from the autumn flowers, so as a rule, I have two separate crops or two flows at various times. That was the rule up to 1891, but in that year in spite of the severe drought the bees gathered nectar nearly all summer. In fact there was only a short time during that summer that the bees were much inclined to rob.

By reference to my record I find that last summer (1902) I extracted on July 8th, August 18th and October 6th. Of course this last extracting should have been done earlier. So far this season I have extracted once, and from present indications I will have to extract in about ten days, or August 20th, as many colonies have nine or more combs mostly filled and partly capped over; and in looking through some colonies where a frame had been accidentally or otherwise left out, I found yesterday several new combs, some nearly large enough to fill a regular L frame.

From present indications I have good prospects for a crop from autumn flowers, such as boneset, golden rod and smartweed. Taking all of the above

facts into consideration I would ask those who argue against the rearing of useless consumers at what time it would be best for me to curtail brood raising.

Would it not be a hard problem to calculate just at what times I should encourage and at what times discourage brood rearing in my apiary?

Is it not plain to all that in my locality it is best for me to keep my colonies always as strong as possible.

I want them strong early in the spring so that they may be able to build up strong during fruit bloom so that they will be ready for the white clover bloom. During the white clover bloom I want to keep them strong so that if there is a surplus to be gathered during the latter part of July and early August they will be early for it. I want them strong about August 1st to August 15th, so that they will be ready for the autumn flow which commences about August 20th or later, and I want them strong when they go into the winter, for it is a well-known fact that strong colonies consume proportionately less quantities of stores than do weak colonies. Then I want them strong early in the spring for the reason stated above so that in my locality there is seldom a time that worker bees will certainly become useless consumers, and should there be such a time I can not be sure that it is coming in advance of its coming. Therefore, the rule with me must be *colonies always strong*.

From what I have said above it is evident that no bee-keeper can be too well informed as to the resources of his own particular location.

Study well your location. If there is danger of rearing useless consumers try to avoid it. If, on the other hand, you are likely to have a flow of nectar from some unexpected source it would not be well to follow the useless consumers theory too closely. If I must err on the

one side or the other, I would rather have my colonies too strong than too weak.

Bluffton, Mo.

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S. E. MILLER, Prop. - Bluffton, Mo.

REPORT OF THE EXPERIMENTAL
APIARY OF THE TEXAS A. & M. COL-
LEGE, 1902-3.

WILMON NEWELL.

The Experimental Apiary was established in May, 1902, with an appropriation of \$500 for the first year's work, or until Sept. 1st, 1902. The itemized account of how this money was expended, as well as the work accomplished up to Sept. 1, 1902, will be found in the "Report upon the A. & M. College Apiary" which was published during the past winter. Of this report 1500 copies were printed, but owing to lack of funds, copies were mailed to only a few parties in response to most urgent requests. Several hundred inquiries were received at the office of the Entomologist for this report, showing that the bee keeping industry in Texas is rapidly growing and the demand for information enormous. Copies of this report may be had free of charge by applying to the secretary of the association, or to the State entomologist.

For the year 1902-3, the sum of \$250 was available. This sum was totally inadequate for the work proposed, especially as the first year's work and funds were insufficient to build up the apiary to the proper size and condition for careful experimental work. The sum of \$250 was exhausted by March 1, 1902, and since that time the experimental apiary has been run mostly by main strength and donations from charitably inclined individuals. Running a private apiary purely for the commercial gain to be derived therefrom, and running an experimental apiary with no possible source of revenue, are two distinct and different propositions, which fact is not always taken into account by the outsider. A number of reasons and chief among them, the necessity of a large and vari-

ed equipment, make the conducting of an experimental apiary by far the more expensive of the two. The \$250 above mentioned, was expended as follows:

| | |
|---|----------|
| Bees and queens..... | \$45.40 |
| Hives and apparatus..... | 64.59 |
| Tools, fence and accessories to bee-house..... | 39.43 |
| Books and Magazines..... | 16.30 |
| Feeding in fall of 1902 made necessary by dry season .. | 6.00 |
| Seeds and plants for Experiments with cultivated honey plants | 15.83 |
| Improvement in main building office..... | 6.00 |
| Travel (foul brood inspection and assistance)..... | 21.10 |
| Freight and express..... | 18.31 |
| Postage and telegrams..... | 14.90 |
| Incidental..... | 2.34 |
| Total..... | \$250.00 |

Owing to the shortage of funds, some lines of experimental work undertaken in 1902, had to be entirely abandoned, while the results with many other experiments were neither satisfactory nor conclusive owing to the small number of colonies engaged in them.

HONEY PLANTS.

In the fall and winter of 1902 considerable attention was given in the current numbers of the bee Journals to a California plant designated as "carpet grass," very flattering reports being given as to its honey-producing qualities and resistance to drouth. We were unable to ascertain the species of this plant and accordingly secured from Nicolaus, Cal., through the courtesy of Mr. J. H. Erich of that place, living "carpet grass" plants. These were planted out immediately upon their arrival and grew fairly well. Some time after securing these plants, its name of *Lippia nodiflora* was published in the bee journals. When the plants at College Station began blooming in the latter part of May they were not only found to be this species, but were also identical with the form of this species occurring in Central Texas. This plant can be found along the banks of streams and on the sandy

knolls adjoining stock "tanks." As a honey-producer in Central Texas, at least, it is absolutely worthless. The bees visit it but rarely, and only then in the absence of all other nectar-yielding plants.

A small field of alfalfa was planted on the upland at College Station in the fall of 1902, and in spite of the abundant winter rains following, died out completely by May 1st. The seed germinated and came up well, but the soil was evidently too poor for its growth.

The writer has often noticed that California privet, which shrub is largely planted for ornamental hedges in many parts of Texas, when in bloom, is visited by many bees and the nectar secured is evidently considerable. With a view to determining the value of this shrub as a honey-producer, a small grove was planted during the past winter. Here again, the lack of help asserted itself and the work had to be abandoned when about one acre had been planted out. It is proposed to continue this planting until the grove contains at least three acres and this in three or four years should give a good indication of what may be expected from this plant.

In March, the seed of several plants, including catnip, teasel, milkweed and sweet clover (*Melilotas*) were planted in carefully prepared soil. None of them grew.

Of over forty different plants tested during 1902 and 1903, only borage, mustard, mignonette, Japanese buckwheat, sweet peas, cowpeas and California privet promise to thrive under soil and weather conditions existing at College Station. Of these only borage, mignonette, Japanese buckwheat and privet offer any prospect of being profitable if grown on a commercial scale for honey alone.

'PELLONCILLOS.'

This, an unrefined sugar manufactured in Mexico, is familiar to the

great majority of Texas bee keepers, and especially to those of the southwest who have often used it for feeding in "off" years.

With a view to testing its food value for bees, and its cost as compared to sugar we secured last autumn about forty pounds of this sugar. The sugar, as ordinarily sold, is in small cones containing about thirteen ounces each, wrapped with corn husks. In December several of these cones were placed in an empty super over a strong colony in need of stores. The bees worked at it slowly but steadily and at the end of a month over half the sugar still remained in the super. On February 10th, 11th and 12th, the weather being warm and sunny, outdoor feeding was resorted to as many of the colonies were short of stores. About one hundred yards from the apiary, three feeders were placed. One contained dry pelloncillos, one syrup made from pelloncillos and cold water, and the other contained ordinary sugar syrup made from granulated sugar (in the proportion of one part granulated sugar to one and one-half parts water.) The bees showed a decided preference for the granulated sugar syrup and took it fully four times as rapidly as the "pellonclic" syrup. The dry pelloncillos were visited by only an occasional bee. The day following, many dead bees were found in front of all the hives and in the afternoon a full quart of bees, dead and dying, were found bunched together by the "pellonclic" feeder. Analysis of the "pellonclic" syrup was made by Prof. H. H. Harrington, State Chemist, and was found to contain a large percentage of acetic acid. The dry pelloncillos were then examined and were also found to contain acetic acid. The large organic content, acid from sugar, is most favorable for acetic acid fermentation. The presence of a considerable amount of water, for this fermentation to take place is not nec-

cessarily essential. For this reason we must conclude that the use of pelloncillos for feeding bees is a most dangerous practice and in no case should be undertaken without first testing the sugar for acid, and even while being fed it should be tested with litmus paper every day to be certain that no fermentation is taking place.

FEEDING EXPERIMENTS.

An experiment in stimulative feeding was undertaken the past spring, but owing to the limited number of colonies the results obtained were not conclusive.

In experiment six colonies, each having six frames of bees, (practically 6-frame nuclei) were used. Colonies 8 and 9 (old series) were fed from February 13th to April 13th, with Doolittle (division-board) feeders, at the rate of one-half pint of syrup per day (granulated sugar one part, to water one and one half parts) the feeding being omitted on cool and rainy days when the bees refused to take the syrup from the feeders.

Colonies 2 and 12 were fed in the same way from March 6th to April 13th. Colonies 1 and 3 for comparison, received no feed. At the beginning of the experiment these colonies (6-frame nuclei) were so far as could be determined, in the same condition. All were in ten frame dove-tailed hives, and all had 3-banded Italian queens.

Summing up the results, Nos. 1 and 3 together produced (up to June 1st), 15 pounds extracted honey. Colonies 8 and 9 were fed in all 8.26 100 pounds of sugar, which at 6 cents per pound cost fifty cents. These two colonies together produced a surplus of 23½ pounds a gain of 8½ pounds over the unfed colonies. Honey of the same quality and kind sold in Bryan, Texas, at this time for 7 cents. The gain over the unfed colonies was therefore 59 cts., obtained at a cost of 50 cts; profit 9 cts.

Colonies 2 and 12 received in all 58 lbs. of sugar which costs 35. cts. These

two colonies produced only 15 lbs. surplus which was the amount produced by 1 and 3 without feed. Loss, 35 cts.

The above results would indicate the feeding commenced early (Feb. 13) was far more profitable than the feeding commenced later on (March 6). The amounts of surplus seem very small but the fact that only nuclei were used in the experiment, readily explains that point. Had full colonies been used the total yields would have been much larger, and doubtless the benefit (or loss) have been more marked.

We are prone to believe from this experiment, as well as from previous observations that whether or not stimulative feeding will prove profitable in the increased honey production, will depend largely upon the price paid for sugar, the selling price of the honey secured, and the length of time available for building up the colonies before the main honey-flow commences. For example, in the above instance it is seen that the colonies which were given from Feb. 13 to April 13th to build up, not only paid for the sugar furnished them, but made a narrow margin profit besides. On the other hand the colonies which were given from March 6 to April 13 to build up, did not even pay for a part of the sugar fed them. As an illustration of the bearing of the prices of sugar and honey upon the results, suppose that in the case of colonies 8 and 9, the sugar had been purchased at 5 cts. The profit would have been 27 cts. instead of 9 cts.

Again, as a somewhat extreme case, suppose that the honey obtained were of good quality and retailed direct by the bee keeper at 10 cts. The profit due to feeding colonies 8 and 9 would have been (with sugar at 5 cts.) 45 cts.

Two full colonies were also used in a similar experiment, one being fed and the other not fed. In this case the fed colony produced but 3 lbs. more surplus than the unfed colony, with a re-

sultant loss of 12 cts. In the case of these colonies, had the sugar been bought for 5 cts. a lb., and the honey sold for 10 cts. the gain in honey would have exactly paid for the sugar fed. In other words neither profit nor loss. The value of the time necessary to do such feeding is not taken into consideration. These results are not considered by any means as conclusive, but are presented as showing how a very small variation in the price of sugar or in the selling price of honey, will determine whether stimulative feeding will return a profit or a loss.

SECTION HONEY VS. EXTRACTED.

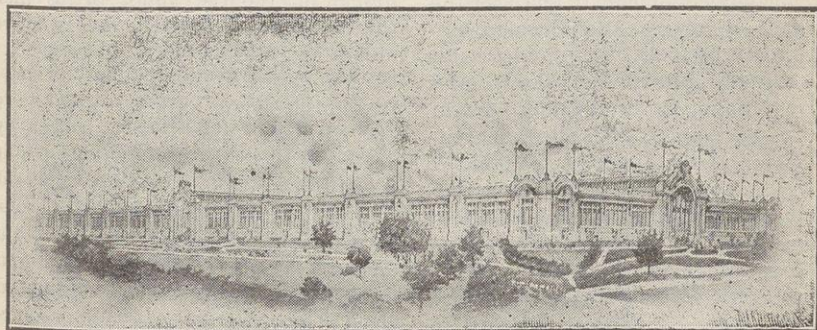
The present season has but confirmed our former opinion that the vicinity of the College apiary is totally unadapted to the production of section honey. A slow honey-flow an abundance of propolis, and above all, a dark honey, are the main deterrent factors. This makes the use of hives especially constructed for section honey production such for example as the Danzenbaker inadvisable. An interesting observation was made the past spring in connection with the latter hive. 4x5 plain sections with fences and foundation starters were placed upon one Danzenbaker hive, and upon one 10-frame dovetailed hive. The colonies in both these hives were 3-banded Italian and "as nearly

as could be determined, of the same strength. Now as to results. The Colony in the Danzenbaker hive produced 11 sections that graded No. 2, and 13 partially filled sections that could not be graded other than cells. The colony in the 10-frame dove-tailed hive produced 15 No. 1 sections and 14 No. 3 sections. We have no explanation to offer.

On account of the abundance of propolis the use of closed end frames, in most parts of Texas, is not practicable, and their use by beginners is not to be recommended. Among extensive bee keepers, rapidity of manipulation is a most important consideration. With a hive as the Danzenbaker rapidity of manipulation as that term is commonly understood in Texas is impossible.

In some localities is so abundant as to make even the Hoffman frame an undesirable one. This is notably the case in the Brazos bottom, but a few miles from the College. It has been the custom of many bee keepers to overcome this difficulty by the use of the "all wood" frame, which must be spaced "by guess." For many reasons, a self-spacing frame is to be desired, and in localities where propolis is abundant we heartily endorse the metal-spaced frame. These frames may be seen in the Experimental Apiary.

(Continued in next issue)



AGRICULTURE BUILDING WORLD'S FAIR.

The Progressive Bee-Keeper.

A Journal devoted to Bees, Honey and Kindred Industries.

FIFTY CENTS PER YEAR.

R. B. LEAHY, Editor and Manager.
F. L. THOMPSON, Editorial Writer.
LEAHY MFG. CO., Publishers.

LET'S ALL BE HAPPY. The Bee-Keeper's Review told us how. A little child, it says, does not tear its happiness to pieces to see what it is made of. Can anything be simpler? Never analyze your feelings; never think of the conditions that bring happiness. Then you will be happy. Stretch your mouth and laugh. How nice!

UNFORTUNATELY, the persistent optimists are not very good company. They may be happy; but if so, they are not very successful in inspiring others to be. Doubtless it is very wicked, but I somehow get the impression from those people who wear Made-To-Order Smiles and emit Cheery Laughs, and make Bluff and Hearty Remarks, and who are Generally Genial and Perfectly Pleasant, that they are selfishly striking an uncompromising attitude in order to avoid the pangs of sympathy, or the uncomfortableness of truth, or the demands of justice. But the man who jokes when he feels like it, and doesn't joke when he doesn't feel like it, and really thinks more about things in themselves than of attitudes concerning them, I feel drawn to. Whatever his faults, I know that he is not acting a part, and that he is a simpler child of Nature than the one who proposes to swallow happiness whole.

THE FOUR ELEMENTS OF LIFE are ignored by the Review in pointing to the little child. It attempts to establish a quarter-truth for the whole truth.

Responsiveness to surroundings is only one element in adult human life. There are three others - work, personality, aspiration. Responsiveness and aspiration do not admit analysis, but the others do; and life as a whole does, in order that the proper proportion of the four elements may be preserved. For if any one of the four is abnormally developed at the expense of the others, or abnormally stunted, the result is mental disease and unhappiness.

UNCONSCIOUS HAPPINESS thus results indirectly from conscious analysis. It is true enough that happiness eludes a conscious, direct grasping after it (just the mistake that the optimists make), but the study and mastery of the conditions of happiness, in a normal and harmonious exercise of all the powers, is quite a different proposition. Then happiness constantly flows in from all sides.

WORK AND PERSONALITY make up the mental world of the vast majority, hence the great amount of unhappiness that exists, for two-fourths of life is thus substituted for the whole. The trouble is not to be remedied by adding only one of the remaining fourths. They must both be added; and of the two, aspiration is the one that is the most neglected and therefore now most needed. In other words, the joy of human intercourse cannot bring more than desultory snatches of happiness unless combined with not only the stable foundation of the mere joy of living that children and animals possess, but also with the blue sky and sunlight above of the joy of anticipation, of something constantly higher and better. Too much human nature is starved by leaving this out. Here is where formal systems of religion show their weak human origin. They point to a pearl of great price, that one sells all else to get possession of; to a treasure in a field, that one gloats over to the

exclusion of all else, and so forth, always with the idea that happiness is a fixed state. Ah, but the mind isn't built that way. The deepest satisfaction, the real growth of the soul, comes from aspiring after something higher, and when that is attained, not resting in it, but reaching out after something higher yet. Ask any candid person when he is happier, whether he is in fixed possession without more effort, of some desired object, or when he is working for something in the future, and consider the answer you will get. I have frequently asked the question, and always obtained the same final answer, though some will thoughtlessly give a different reply at first. But habit is so strong that we do not act what we at heart believe.

"To every form of being is assigned
An active principle.
This is the freedom of the universe,
Unfolded still the more, more visible,
The more we know; and yet is revered
And least respected in the human mind,
Its most apparent home. The food of hope
Is meditated action; robbed of this
Her whole support, she languishes and dies.
We perish also; for we live by hope
And by desire; we see by the glad light
And breathe the sweet air of futurity;
And so we live, or else we have no life."
—Wordsworth.

CLOSE RELATIONS EXIST, of course, between each of the four elements of life and happiness. The mere joy of living leads to the joy of intercourse, and to the joy of aspiration. In this way bee-papers and bee-conventions are necessary to progressive bee-keepers. Aspiration and truth seeking are much the same thing. To aid in establishing a better knowledge of the truth is to make one's self happier by attention to the neglected fourth of life, and tends to make the world happier by the force of example.

OF ALL WORK, ORIGINAL WORK comes closest to aspiration, for obvious reasons. Other work can

be done by anybody; original work is not likely to be done in just the way you do it by any one else. It is your own contribution, that you cannot be deprived of to the well-being of self and the world. There are so many more important matters than apicultural ones that personally I have done very little in this line in bee-keeping. But if there are any bee-keepers whose minds are at ease on questions of social progress and education, and think the world is getting on very well as it is, let them consider the claims of the improvement of apiculture, and see whether there is not much to be done that they can do, and make themselves happy in doing it. There is great need of original work in our pursuit. Prejudice and fads are rampant; the exact truth is little regarded. Great claims, for example, were made, and some are being made, for plain sections, which have no foundation in fact, as shown by crucial experiments. Equally fantastic claims are made for tall sections. I have not experimented with them, but the very fact that they are boomed by the same parties that boomed the plain sections is enough to make one suspicious. There is the same avoidance of genuine proofs.

ORIGINAL WORK IS LABORIOUS. One practically never gets paid for it, financially. Thus, in determining the claim made that plain sections were better filled at the edges, something like 4000 entries of figures were made, to be afterwards computed. The observation on which the figures were based had to be taken in the busy season. The subsequent computation was also long and laborious. You don't catch the boomers doing such work. They prefer the get-rich-quick method of hazy statements. But the one who has done the real work has the worthier satisfaction of a solid contribution to the cause of truth. To be sure, the

discovery that such and such people are boomers more than truth seekers is also valuable to one's pocket book, in a negative way.

ORDINARY EXPERIENCE may also be made to have the character of original work, if one is cautious enough. The difference is, that in pure investigation, undertaken to settle a point one way or another, one is more apt to take account of, and provide for, all the conditions, so that the result shall be a fact and not an inference, whereas in ordinary work, many influences may exist that the method ignores, but which must enter into the result. This vitiates most of the so-called testimonials. Thus, this season my separated section honey averaged sixteen ounces apiece. This was done by giving $2\frac{1}{2}$ inches of space to each $1\frac{1}{4}$ inch section, in some supers by cleating separators with $\frac{1}{8}$ inch cleats, and in others by spacing sections $\frac{1}{4}$ inch apart, and dropping separators between, to stand as they pleased. But there were no comparative tests, hence any inferences that I draw must be given as inferences, not as facts. I think, for example, that when colonies are reasonably strong, the financial difference between tall thin combs and square thick ones, of the same width, is as the difference between tweedle-dum and tweedle-dee. But to get at the exact truth of the matter would require much closer study and experimenting. Those who claim there is a difference say they have made experiments, but they do not give them. Bosh. Experiments not given are no experiments at all. We may suspect that the said experiments were so incomplete that the results are not to be justified in being stated as facts, but should be called inferences, and that that is just the reason they are not given. Who will settle this point, either by tall and square sections in the same supers, or by large numbers of the two kinds in the same

apiary, in the same flow? Let's see, are not some Texas parties pretty well stuck on the tall sections, who read the PROGRESSIVE?

FULL WEIGHT, and nothing else, is the strong point of tall sections. But if the weight can be obtained with standard sections, by doing as I have done, there would be no need of a change. It is very desirable that sections should retain the same depth and length, on account of the difference it makes in loading cars to have all shipping-cases exactly alike.

TIERING UP by adding the new super above the old one has been discussed of late, in a way that shows misconception of the idea. It is not to always put the new super on top, no matter how many supers are under, but to always have the new super just over the one that is approaching completion—not over the one that is just receiving the finishing touches. The latter should always be on top. If it would thus receive less attention than it should, there are too many supers on the hive. In other words, a super should be nearly completed when next the brood chamber, but when that point is reached, should change places with the new super, which has been added some time previously on top. Many times this season I noticed that putting the new super next the frames too soon resulted in neglect of the outside sections of the super approaching completion, to work the center sections of the new super. The flow was too slow for the bees to work willingly at the sides when they had plenty of room given directly overhead and next to the frames. Putting the new super above the old one for a time corrected this tendency. The center sections of the new one would be worked some, but not at the expense of the old super, as happened by the plan of tiering underneath.

TEXAS CONVENTION PROCEEDINGS.

Held at the A. and M. College, at College Station, July 8 to 10, 1903.

(Continued from last issue.)

Another map should show the total honey production for each county. It would reveal that the five counties of first rank as regards honey where hive produce six per cent of the crop of the state; that the three of the class producing 20 to 25 lbs. per hive (excluding three with but 45 hives) produce 4 per cent of the total; that the 21 (excluding those with but few hives) producing 15 to 20 pounds per hive produce 19 per cent of the total, and that all together these 29 counties having an average production per hive greater than that for the United States produce 29 per cent of the total production of the state. Of those counties producing 12 to 15 pounds per hive, over the average of the state, 35 (excluding 5 having less than 100 hives) produce 26 per cent of the crop of the state. Thus, the 64 counties, or 32 per cent of the honey producing counties of the state produce 54 per cent of the total crop. The remaining produce the other 46 per cent. This points to the conclusion that the bulk of Texas honey comes from counties east of Austin which produce about the same amount as the average per hive for the state, 12.2 lbs.

It is to be regretted that the value of honey for each county is not given, and that the value of honey and wax is combined in the total for the state, as these figures would give us a better indication of the quality of the product of different sections of the state. I am aware that the census was subject to much error and that it is now three years old. But in comparing it with figures secured from bee-keepers in different counties, we are inclined to be-

lieve that the census is fairly accurate as a whole and more to be relied upon than private information. Though a large advance has been made in apiculture in Texas in the last three years, and some shifting in the areas of greatest production, still the general conditions are doubtless practically the same. Those of you who are familiar with local conditions can doubtless better and further interpret the above statistics than can I, but one or two conclusions seem to me quite readily apparent.

(1) The bulk of the bees and honey of Texas is of a low grade.

(2) The honey is produced mostly east of the Colorado river.

(3) In this area there might easily be supported five to ten times the present number of colonies.

(4) By improvement of the bees and by better methods of hiving and management the average product per swarm might readily be increased 50 per cent.

It seems to me that these facts open up a large field for our apiculturist to do valuable missionary work in bettering apiculture in Texas. It seems to me that many a farm might support a number of colonies of bees, cared for largely by the women and children, which like the poultry, would go far toward furnishing the comforts of home and happier living. In connection with the development of large fruit interests there is also a chance for many moderate sized apiaries, for fruit men are coming to learn that they must have bees to produce many varieties of fruit in perfection. Nor does it seem to me that professional bee-keepers need have any apprehension of an increase in the number of colonies and consequent product will have an undesirable effect upon the market for first-class honey. The market for honey is practically undeveloped and the supply is far from filling the demand. As long as the market is not glutted an

increase in production, providing the quality is maintained, exercises but little influence on the price of the first-class product. It seems to me by bettering the methods of bee-keeping throughout the state this association will be doing much toward securing better prices for the products of its members. Unfamiliar with the conditions of apiculture in the widely varying conditions of this great state it is impossible for me to point out the local application these statistics, but their significance will be readily appreciated by this audience, and as time goes on we trust that Mr Scholl will further elaborate this preliminary survey of Texas apiculture. We trust that with your co-operation and support we may do much toward bettering and furthering this most interesting and profitable industry.

In closing let me again welcome you here. Visit the bee-house and yard. Mr. Scholl will be glad to explain all details to your satisfaction, and we will appreciate all suggestions or criticisms. Let me assure you that though not a practical bee-keeper by profession or training it will be my constant endeavor to direct the apicultural work under our care to the best interests of the advancement of Texas apiculture. I trust that in a few years Texas may lead in the quality of her bees and their product as well as the quantity, and that her experimental apiary and the organization of her bee-keepers, may be the best possible. To these ends we shall devote our best efforts, and with the continued assistance and support of this association do not doubt their achievement.

An unanimous vote of thanks and appreciation was extended to Professor Sanderson for the interest he has taken in our pursuit, that of apiculture of the state of Texas.

Some figures of Mr. Toepperwein

were very interesting as they showed to some extent the great amount of honey that was produced in Texas. He reported that 13,000 cases of cans, of 120 lbs. each, had been already sold, besides 190,000 sections, both of comb and extracted.

The Hyde Bee Co., of Floresville, report about twice that much more.

Mrs. Ben D. Burrow, of Navasota, Texas, read the following:

BEE KEEPING FOR WOMEN.

Ladies and Gentlemen: For years past women have taken an active part in nearly every branch of the commercial world, pressing out into most every known occupation which tends to the well-being of our great and prosperous country, and to-day we have the pleasure, as honorary members, of meeting with the men in their association to discuss the feasibility of "Bee-Keeping for Women."

Now we are well aware of the fact that each year there are many of our sex thrown upon their own resources and compelled to grasp the care of life's frail bark and stem the ocean tide. Some, I say are compelled by circumstances, others choose such a course rather than consent to be the heroine of a pure and peaceful home as beyond a doubt was the Divine purpose. When a woman realizes that she is dependent upon her own abilities, the first question that confronts her is: What can I do—what can I do to win a livelihood and thereby be independent? The first thought usually is: I'll teach or clerk, or something just as confining, and we may say ruinous to health and usefulness. Why did she not think for a moment of the possibilities which lie before the American women of to-day in some out-door vacation and especially Bee-Keeping.

One reason, if she did think of it, such an idea was immediately dismissed as being impossible for women. Yet

it is by no means impossible, for there are many lady bee-keepers just as successful as men, and more so than some men, but we will not charge that to the man's incapacity, though it could be the case for there is room for such argument in some instances. Surely bee-keeping was not slighted on such a plea. The pleasure it affords and the healthful influences together with the monetary results recommend it to the consideration of every energetic young woman.

What is more enjoyable than to walk into your cool and shady apiary with smoker in hand on some fine May day and hear the happy hum of little bees as they come tumbling and crowding into the hives, laden with the dainties from the field, forest and glen. Such sweet peace and pleasure may be any woman's for just a little time, patience and trouble. And then it is not only pleasant but very profitable. Like poets, bee-keepers are born, not made, but most any live, energetic person can in time become a successful bee-keeper.

Again it may be truly said that it is no lazy man's job. Many hesitate because they have no experience in the work. If you have none of your own, falter no longer, but fall in line and appropriate some of your fellow-worker's. You may be able to pay back some day. That is what we are here for today, to help one another. This is a men's association, but I am glad they have thought of us lady bee-keepers and consented to take us in as honorary members at least.

Bee-keeping is becoming more and more scientific, though there are some "way back yonder" farmers who are contented to have a few log-gums. In a few years it will not be so. Ladies, take the matter in hand yourself. Mr. Farmer will be too busy and sleepy over the subject to object. Transfer the bees into nice new hives and some

morning he will open his eyes to see those neat rows along the front walk and hear the bees with renewed energy hunting on the near by clover. There are other things he will think of too when there a nice clean sections of honey to market and then next time more and still more. He will doubtless remember that he was once owner of those bees, yet he would never know it from their appearance now. Then there was honey for Sunday only and it dark and thick,—not the nice clean sections that now grace the table almost daily.

Let us arouse some of the men too on the subject. I suppose my father would never have thought of being a bee-keeper if his wife had not had a few patent hives when they were married.

The expenses of a beginner need not be great. Hives, frames and other fixtures do not cost much now. A lady with a little help could make them herself. So, if one has not the means for securing these necessities, they can easily be made on the farm. Most every farmer's wife or daughter raises some chickens for market each year; why not invest the proceeds in bees so that in time you may make more than mere "pin-money."

True not all localities are adapted to the production of honey. In such cases queen rearing might be followed with success since fine tested queens are in demand all the time. Then the production of wax is another feature not to be over-looked. I think if the ladies who have the time to canvas their neighborhood with teasetts or patent medicine would establish an apiary they would find it more pleasant and far more remunerative.

There is here in connection with other studies an apiary for the boys who wish to study this branch of the course. Have you asked yourself why

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The A. I. Root & Co., tell us that our stock is extra fine while the editor of the American Bee-Journal says that he has good reports from our stock from time to time Dr. J. E. Gandy of Humbolt, Neb., says that he secured over 400 pounds of honey, (mostly comb) from single colonies containing our queens.

A few more testimonials:

P. F. Meritt of Breckenridge St. Lexington, Ky., writes, "The bees sent me last July did splendid. Each colony has at least 75 pound honey. (pretty good for two frame nuclei.)"

Mr. J. Roorda of Demotte, Ind., writes saying, "Send me six more queens, the 48 sent me last spring are hustlers."

Mr. Wm. Smiley of Glasgow, Pa., writes saying, "Your bees beat all the rest, now send me a breeder of the same kind."

A. Norton of Monterey, Calif., writes saying, "Your stock excels the strain of Mr. --- which is said to outstrip all others. Your stock excels in profitable results as well as in beauty."

Queen rearing is our specialty, we give it our undivided attention and rear as many queens (perhaps more) than any breeder in the north. No order is too large for us, as we keep 300 to 500 on hand ready to mail. Send all orders to

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Ad the price of whatever queen is wanted to that of nuclei. Our nuclei build up fast and if not purchased too late will make some surplus honey.

the boys should have advantages over the girls? Are not the girls equal to the task? If so, then in the Girl's Industrial School at Denton let there be an apiary. Yes, let the boys learn to care for the "Jersey," "Durham," "Hereford," etc., and the girls to keep bees, then will we truly possess "a land flowing with milk and honey" There was a day when girls knew not the fret and worry of securing a livelihood. But then we saw "as through a glass darkly," now face to face and we are brought to realize that institutions whereby young women may be

equipped for the struggle are a real necessity and as we are called the weaker sex why not help the weak. So let us think of getting an apiary at the Girls' School. Not only think of it but get it. We hope to hear of many ladies taking up bee-keeping, not to add to their "pin-money" but to become an auxiliary to the wealth and income of the farm and we wish to see in this assembly room at our annual meeting many lady bee-keepers fully interested in this new calling to our girls.

SHALLOW HIVES WITH CLOSED-END BROOD-FRAMES.

The Bingham Hive.

BY J. O. SHEARMAN.

The spirit moves me—or, rather, W. K. Morrison does—to say something on the subject of shallow hives again, as I have been using such for over thirty years, and have seen no reason to discard my original size of frame (the Bingham, 20 inches long by 6½ deep, and 1½ from center to center). If I had to start all over again, however, I should prefer frames 1½-inch spaced, and with closed ends entirely, for the following reasons: 1. Less prop-lis used in the hive; 2. Less waste room; 3. Less trouble with brace-combs; 4. Less room for millers to hide in.

A year or two ago, Mr. Editor, you wrote me for an article describing closed-end frames. I made it as short as I could, because editors object to long articles; but if I had written up their advantages as well, I would have given some of Mr. Morrison's article. In fact he agrees with my experience very nearly. Only I use a brood-chamber 20 inches long, and anywhere from 2 to 12 frames wide, as it is adjustable without dummies, which are a nuisance. The two or three frame is for a nucleus, though I make up most of my nuclei with little frames, three of which occupy the space of one ordinary frame. Seven of these little frames fill a nucleus-box; or by taking out the middle one, and inserting a division-board, two three-frame nuclei may be kept in one box.

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

Last year I tried an eight-frame L.

hive by trimming the combs and tacking on thin strips of wood all the way down the end pieces, so as to space them 1½ inches apart, then put 9 frames in a hive instead of 8, and they did as well and had one more comb to brood in but less room to make up extra drone and queen cells, as any bees will do in any hive.

Any hive with a hanging frame is a bother for me, except in an upper tier for extracting; then I move them apart

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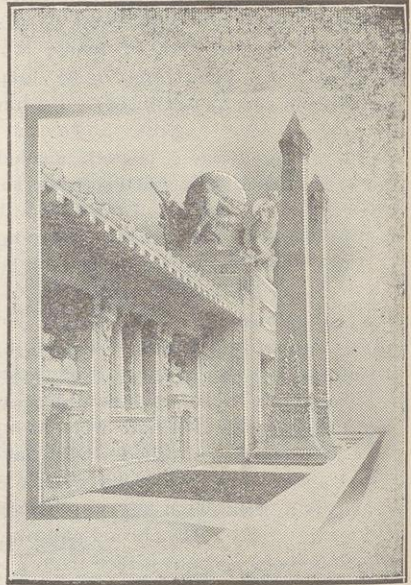
East St. Louis, Ill.

so as to use one less comb in the same super. These drone combs do no harm above queen-excluders. That is the only place I want drone comb if I can help myself, and none in the sections until after the swarming impulse has passed, else the queen is apt to go up into the sections, as all queens seek to lay drone eggs before swarming.

My brood-chamber is adjustable by simply moving the back board back in order to but in more combs. The most of my comb-honey colonies have eleven or twelve combs from June to August but may have ten in September, or possibly only eight or nine for winter. For extracting I space the brood-chamber to the width of any super I wish to put on; or if for piling Bingham frames then put eleven below, and have a case that will hold eleven or twelve with a movable back inside, in order to wedge up and tier up—the more the better if bees are in condition and a good flow is on. The ten-frame Bingham hive has nearly the same capacity for brood as the eight-frame L. hive. The ten-frame L. hive is too bulky for me to handle. I once, over twenty-five years ago, tried an experiment for comb honey, or trial between ten L. hives (the ten frame) and ten Bingham hives. I put a prime swarm in each alternately, giving a full set of combs, and boxes on top. I kept account of it

and the Bingham averaged over \$1.00 worth more of honey. I tried a few of the L. hives the next year, but they did not pay as well, so I put them to extracting. That ended big hives for comb honey with me.

New Richmond, Mich.—Gleanings.



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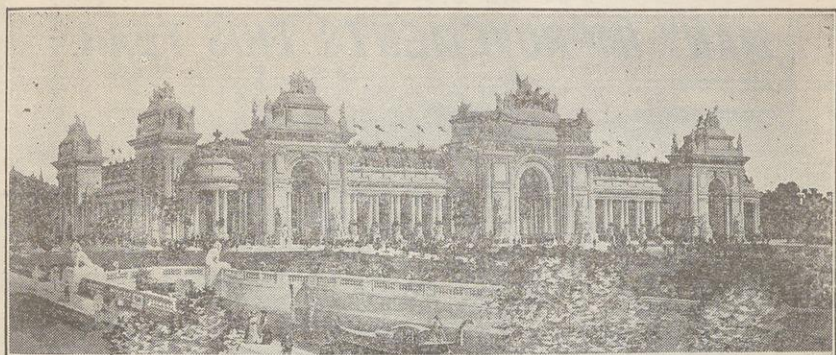
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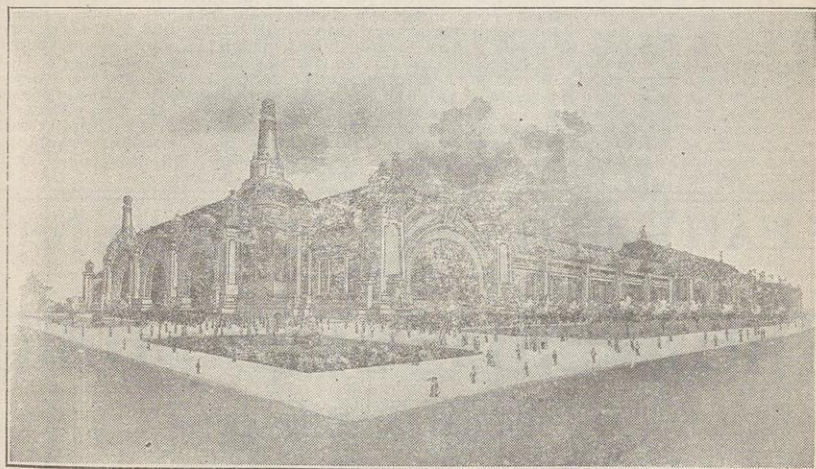
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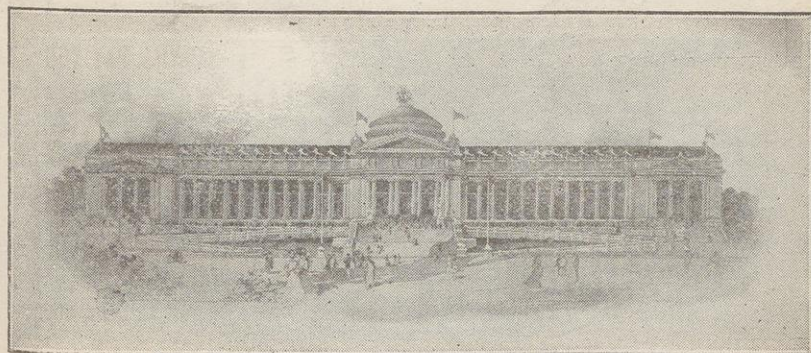
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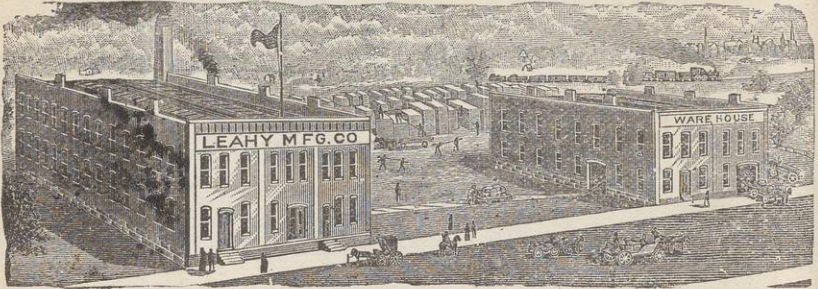


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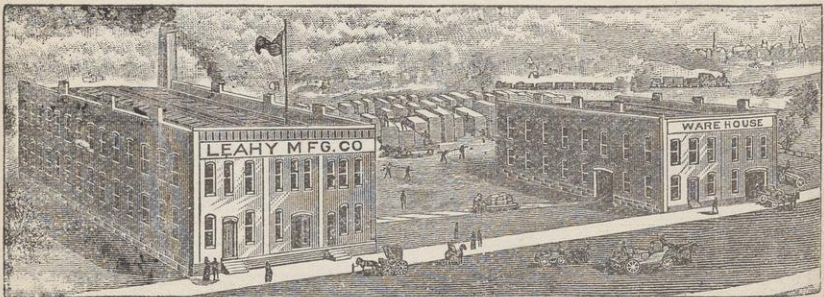
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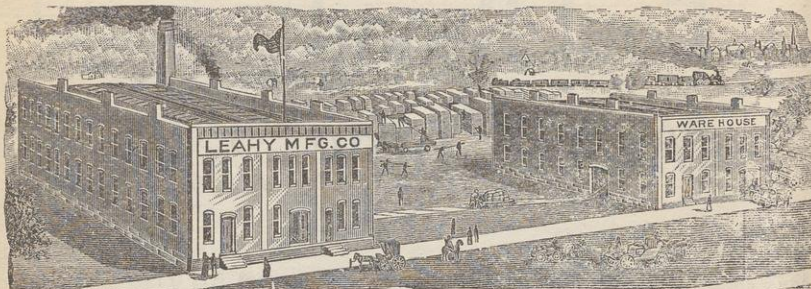
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


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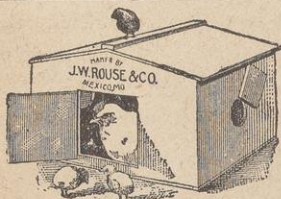
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