

The progressive bee-keeper. Vol. X [XII], No. 7 July, 1902

Higginsville, Mo.: Leahy Manufacturing Company, July, 1902

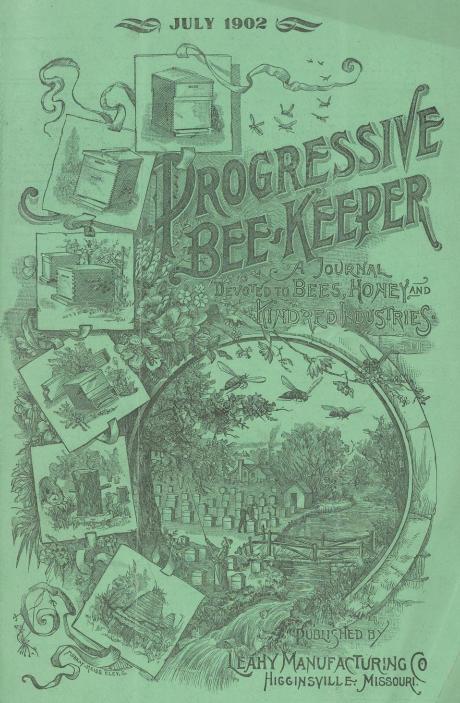
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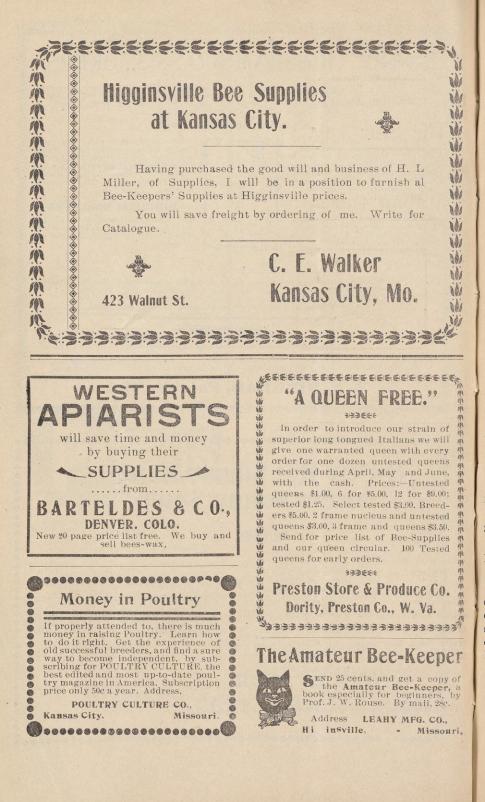
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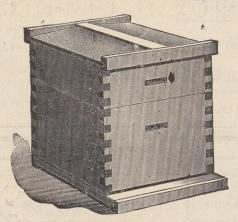
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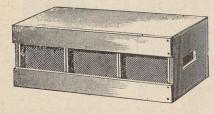
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ECONOMICAL WORK.

F. L. THOMPSON.

As important as anything, in making money from bees is to work so that every stroke tells. It is as easy to put a great deal of work on bees that amounts to little or nothing, as to burn money on them. This is why the advice is always given, and always should be given, to have bee-culture by first working with a practical bee-keeper. Some little knowledge of economical work may be gained by reading, but nothing makes it stick like expense; and even when apparently fully known by hearsay, the test of experience shows that somehow it was not realized. Still, for those who are not so situated as to work under the guidance of others, it is worth something to get started right.

What are the really necessary things to do with bees? The farmer would say, hive swarms (when you see them) and put on supers. The beginner who has been primed by a bee-book would be apt to say, stimulate brood-rearing. equalize stores, make nuclei, raise queens, examine once a week, feed for winter, etc. The practical course is by no means half-way between these two extremes; it lies much nearer to farmer's method than to the the amatuer's and has long ago been tersely expressed by "The greatest amount of honey with the least amount of labor." The farmer loses much honey by not doing a few things at the right season; the professional bee-keeper does just those things, but no more. Briefly, the necessary things are to secure the right conditions for wintering, either by a good cellar, or proper packing, or arrangement of the tops of

the hives; to examine early in the spring, hurriedly, with as little disturbance as possible, for queenlessness or disease (if foul brood is in the neighborhood.) and once later in the spring with more care for disease and sufficiency of stores (feeding when found necessary,) taking advantage of this inspection to do all desirable scraping and pruning of propolis and burn combs and clipping of queens; to get surplus receptacles and hives for increase ready beforehand; to adopt and follow a simple and uniform plan for swarming management, either hiving first swarms and preventing after swarming by approved methods, or making artificial swarms, or preventing swarming; to requeen poor colonies; to put on a super, and add more supers, at just the right time, and to remove each finished super promptly; to scrape, grade and pack the honey in accordance with a definate system: to have it ready for market as early as possible, so that any chances for selling it to good advantage may not be lost; and to keep most of the drone-comb, and all imperfect or irregular combs, replaced by straight worker combs. It follows that a through going producer of honey in an average location, who does not rear queens, will not look at the brood-chambers of his colonies more than three or four • times a year, and thoroughly look them over not more than once.

Now, every beginner who has read a little will see at once that there are some omissions in the above. It is one of the tantalizing features of bee culture that some apparently competent authorities think some things are vital, and other equally competent authorities think they are not. Locality accounts for much of this. For example, it is not necessary to be very particular to clean out the bottom boards of most of the hives here in spring, but in some parts of the East it appears to be very necessary. But when two competent p rsons of different opinions are in similar localities, they cannot both be right. One may be competent in general work, but lacking in scientific accuracy in drawing inferences. He may be one of those who think it a virtue to say "I know," and a weakness to say "I don't know." This union of genuineness with false pretensions deceives himself and many others. For this reason so simple a matter as drawing up the bare essentials of honey-production cannot be carried through without running counter to some fixed ideas; though if all would only think hard and honestly they could agree which matters are unproved, however much they might differ in their opinions on these unproved matters: for proof or lack of proof is simply a matter of good logic.

Stimulative feeding for spring is one practice whose value is unproved, hence it cannot be included in the list of essentials. It has been said lately it is desirable in Colorado; but conconvincing proof has not been given. If feeding stimulates, that does not prove that the stimulation is profitable. From the view-point of this locality, there are two questions involved: 1. Which is better, a strong colony of old bees, whose vitality is unimpaired by previous brood-rearing, or a weak colony of young bees, thirty-seven days before the flow, that being the time required to rear honey-gathers from the egg? 2. When natural pollen (the best kind of a stimulant) begins, as it does here, more than thirty-seven days before the flow, and continues without a break, is it any additional stimulation to feed thin honey? In answer to the first question, one experience in cellar-wintering here shows that a comparatively late start in brood-rearing with strong colonies of vigerous old bees, which start was still, however, more than thirty-seven days before the flow, produced results just as good as the usual handful of brood kept up from January on, resulting in weak colon:

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by the first of May. To be sure, natural pollen begins rather late here, not till the last week of April, and bees will take artificial pollen eagerly before that time, and it certainly does stimulate them: but it is very doubtful whether that stimulation is any real good. As to the second question, any one familiar with the normal aspect of the broodchambers here in the middle of Maybroad sheets of brood with comparatively few bees and who concludes that the bees can be stimulated more than they are, must have some considerations in mind which are not apparent to the understanding of this writer. If there is one thing in which theoretical views are dominant, it is in this matter of stimulation. Where are the proofs?

The proper method of keeping the hives free of drone-comb is also open to much difference of opinion. By the time the readers get this issue, it will be the middle of July, just the time to test the after results of hiving swarms on starters in the brood-chamber vs. full sheets of foundation. Anyone who has ever tried it knows how much time is consumed in wiring frames, and what an expense it is to buy full sheets of foundation. Moreover, some combhoney producers have made comparative tests of the amount of surplus procured from swarms hived on full sheets in the brood-chamber, compared with the surplus from others hived on starters in the brood-chamber, and the swarms with starters below came out ahead; naturally, for with full sheets below too much honey is stored below at the very start, at the expense of the surplus department. Compare the plan of hiving on starters, then removing the frames containing drone-combs as soon as the whole brood-chamber is built out, substituting full sheets of foundation for those few combs. If this is done when there is still plenty of time before the flow stops for the bees to get their brood-nest in normal condition for winter by having the major portion of each comb stuffed full of sealed honey, one will be the gainer by as many full sheets of foundation as would have been used in those frames which actually contain all worker comb built from starters. "Yes. but how about those extra combs taken out?" Not a bit of loss. Don't all bee-keepers sooner or later bemoan their lack of foresight in not having some extra combs of honey? Who would ever use a feeder, and buy feed. to bring up a spring shortage of stores. if he could only slip in combs of honey and be done with it? By using the worker portions of some of those combs to patch the rest with, leaving enough for starters, one gets a lot of worker honey-combs for next spring's use, some frames with starters of comb for next summer's use, and some trimmings of drone honey-comb for the table, out of a miscellaneous lot containing corners and streaks of drone-comb; or, if no spring feeding is required, those completed combs can be used to replace the drone-combs of next season. It is also possible to wait until the next April before doing this work; but that is not so well, for then foundation cannot be used, in this latitude, to replace the combs removed, but extra drawn combs would be required for the purpose; and, to, a little delay of the work. carrying it into May, means some chunks of drone-comb. By thus using foundation only to replace actual drone combs, instead of in the whole broodchamber, when the bees will be sure to build more than half all worker combs anyway, one saves the labor of wiring four to six frames to the hive, and saves the expence of four to six sheets of foundation to the hive, and has more honey.

Denver, Col.

"Somnambulist" takes consderable space in this issue, but as usual its good reading.

Che Progressive. Bee=Keeper.

A journal devoted to Bees, Honey and Kindred Industries.

FIFTY CENTS PER YEAR.

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

UP TO THIS DATE, the year 1902 has been the most peculiar, and the hardest on any bees of I have known during the 33 years in which I have kept bees.

FROM THE MIDDLE OF DECEMBER to the middle of Feburary it was a continwal winter, while, from the middle of January to February 18 the snow never even softened a particle in the shade, and to no perceptible extent in the sun. A month of time in which there was no thawing of the snow was something never known before by "our oldest inhabitant."

MARCH on the whole was a mild month, but during same there were only three days suitable for the bees to fly so that scarcely any brood was started till April 15 to 19th, at which time I set the bees from to cellars, so that bees wintered out door had no preceptible advantage in early brood-rearing over those wintered in the cellar, which is an unusual thing in this locality.

WHE LATTER PART OF APRIL we had just one warm day, a day on which the mercury stood at about 80 degrees in the shade at three o'clock in the afternon, but before the next morning it had sunken to below the freezing point, and the bees were obliged to cluster similar to what they do in winter the rest of the month, so that only the sealed brood and some of the more advanced larva were nourshed to perfect bees. Then we had three days in May, between the 21st and 25th, during which the mercury stood at from 80 to 87, and that is all the warm weather we have had to this date, May 31st, •1902.

ON THE MORNING OF MAY 8th it began to snow and continued to do so at intervals during the forenoon. During the afternoon it cleared with a high wind and the mercury at 36. As the shades of night drew on, the mercury had gone to 33, but as the wind kept up we had hopes that we should escape a freeze. But our hopes were vain, for the uext morning the mercury stood from 20 to 24, at various places, and ice was formed on any water sitting out to the thickness of fully one inch, and the ground was so frozen on our roads that it would bear the milk teams as they went to the Creamery with their milk, and everything killable by frost was "laid low."

AFTER THE WARM DAYS spoken of above it grew cold again, and commencing with 9 p. m. of May 27th it began to snow and continued to snow for 24 hours, the snow melting as fast as it came, but winding up with ice again on the morning of the 29th. To-day I have taken a tour out among the basswood trees and find that all the blossom buds are killed, most all of the ends of the twigs are killed, or so badly damaged that they cannot grow. But I find that the dormant buds, are those which are usually so, are begining to swell, so these will send out a later growth so as to preserve the trees, as they did a few years ago, when the forest worms stripped them of their leaves. But the worms only worked over a limited area, while this freezing is general throughout this section; and therefore, this part of New York State will cut no figure as regards overstocking the markets with "water white" or bass_ wood honey, this year.

WHAT HAVE I BEEN DOING WITH THE BEES? Well, I looked them over as usually as soon after setting from the cellar as possible, to make sure that all had honey enough to carry them through to fruit bloom, and all had good queens as well. After that the point was to make them as warm and comfortable as possible by seeing that the top was nearly air tight as possible, and that the entrances was no larger than was necessary to fully accommodate the bees according to the size of the colony inside. This entrance part is where m.ny fail by opening it up to its full capacity on the first warm days. By so doing much of the heat generated by the bees passes out of this large entrance during cool nights, and consequently brood rearing does not progress nearly so rapidly as it otherwise would. If any reader of this is in the habit of giving the full entrance of the hives during the warm days of spring, here is a thought which will help him much during the year to come. if he will only heed it.

WHEN THE WARMER WEATHER CAME the latter part of May we had every reason to expect that "it had come to stay," for we generally have it to come by the 20th of that month, so I began preparations for queen rearing by starting queen-cells and forming nuclei, so as to have laying queens as early as possible. But as the cold weather of the 27th and 28th came on before these nuclei had gotten well etablished, and as it kept cold so long the bees were obliged to draw themselves together to keep themselves warm, so left much of the brood to parish. This will result in quite a serious loss, not only in brood and in the time which must necessarly be taken by the bees to clear this dead brood from the combs, but a loss of many of the nuclei beside. The one who thinks the queen breeder has any easy time would find out that he was greatly mistaken, were he to embark in that part of apiculture. There are many things about the queen rearing business that are more trying to the disposition

than there is about the production of honey.

BUT I AM NOT DISCOURAGED. There should be not such word as "discouraged" with the one who has chosen apiculture as his business. The freezing killed nearly all the fruit bloom, so that the bees had to use on their old stores for their supply from which to rear brood, and I am now equalizing these old stores, taking from some colonies which have more than enough to last them two weeks and giving to those whose stores are nearly exhausted, and it looks now, that both here at home and at the out apiary. there will be enough to last all of them two weeks, or till the middle of June. at which time the black locust usually blooms, and the first white clover blossoms appear. Neither of these was injured by freezing, as the clover can stand frost, and the black locust is so late about leaving out that the buds are only just now beginning to show the embryo leaves. If these fail then the only thing to do is to buy sugar and feed. Some will not do this, but I do not see wherein it is different to buy sugar to feed bees than it is to buy hay and grain to feed cattle and horses. This idea that "bees work for nothing and board themselves" has gotten so firm ahold on some that they will allow the bees to starve before they will buy feed for them, and especially during the summer season. Many a time have I been told that if the bees could not secure a living during the time of the flowers they could starve. But I consider such thoughts as only mistaken ones, and wish to impress on the minds of the readers that it pays fully as well to buy feed for the bees in time of scarcity, as it does to buy for any farm stock, when there has been a deficiency of such supply from the farm. The one who has chosen apiculture for his vocation is "penny wise and pound foolish," whenever he does not see that all of their wants are fully supplied.

G. M. DOOLITTLE, Borodino, N. Y.

A CRITICISM.

In the June issue of the Progressive I remarked that the climate of Colorado in September would be to severe for pleasure seekers. I had in mind that many going to attend the Bee Keepers Association would also wish to stay over and see some of the grandeur of that rugged state. I wrote with only my own experience in mind. I spent a few weeks in Colorado last September and have been reminded every day and night since that I was there. But then I am subject to rheumatism. An earlier date of course would have pleased me better. The article produced the following criticism:

DEAR PROGRESSIVE: You say that the directors must have lacked knowledge of the climate of Colorado to appoint the convention at Denver at so late a date. Please go for the executive. They're the culprits. The directors had nothing to say about it. And before you come down too hard on the executive commitee, remember that they had to take a time when some other meeting brought low rates, and such things don't occur every day. Besides that, if the date were much earlier, it would not be so easy for some of us eastern people to get away.

ONE OF THE DIRECTORS.

BRO. LEAHY: I have just read your editorial on September as the date for holding the convention at Denver. You think it will be rather cool weather for people from lower altitudes. J was out there last November, and I certainly would not ask for finer weather at that time of the year. The air was clear, crisp and bracing. The National has held some of its most successful conventions in the dead of winter. To me. September seems the ideal time for meeting. It is after the heat of the summer, and the hurry of swarming time is over, yet the cold of winter has not come. I may say, however, that the time was chosen because we could at that time secure reduced rates from all parts of the country, on account of the meeting at the time of the National Letter Carriers' Association at Denver. A National convention without low rates on the railroads can never be a success. That is why this date was chosen, and I feel sure that no one will find the climate of Colo., in September, anything but delightful.

> As ever yours, W. Z. HUTCHINSON.

ON PAGE 164, Progressive, I read, Dr. Miller thinks bees mark their location each time they are moved, so that loss from that cause is slight. I must have been talking in my sleep when I said anything like that. (I sometimes talk in my sleep, although I have never been guilty of walking in my sleep.) You know very well, Sammy, and so do I, that if a colony should be moved during these warm days, the colony would be depleted of about its entire field force, unless moved outside the range of its usual flight.

I'm not finding fault with you for telling that I said such a foolish thing, but why under the sun didn't you add that what I said was a l-l-little ways off from the truth? Please come around and spend the evening with me sometime, Sammy, and show me the place in Gleanings where I said that.

C. C. MILLER.

The American Bee-Keeper has added a very interesting department called the ""Bee Keeping World," where are cornered many interesting selections from foreign bee periodicals.

The National Bee Keepers Association has pressed back into service their former manager, Mr. Eugene Secor. This is well.

We learn from the American Bee-Keeper that Mr. Pridgen of North Carolina is writing a new book on queen reasing.

THE IVY GREEN.

- Oh, a dainty plant is the Ivy Green, That creepeth o'er ruins old! Of right choice food are his meals, I
- ween,
- In his sell so lone and cold.
- The wall must be crumbled, the stone decayed.
- To pleasure his dainty whin;
- and the moldering dust that many years have made
 - Is a merry meal for him.

Creeping where no life is seen, A rare old plant is the lvy Green.

- Fast he stealeth on, though he wears
 - no wings, And a staunch old heart is he.
- How closely he twineth, how tight he clings
- To his friend the huge Oak Tree!
- And slyly he traileth along the ground, And his leaves he gently waves,
- As he joyously hugs and crawleth around
- The rich mold of dead men's graves.
 - Creeping where grim death has been A rare old plant is the Ivy Green.
- Whole ages have fled and their works decayed,

And nations have scattered been;

- But the stout old ivy shall never fade From its hale and hearty green.
- The bare old plant, in its lonely days, Shall flatten upon the past;
- For the stateliest building man can raise

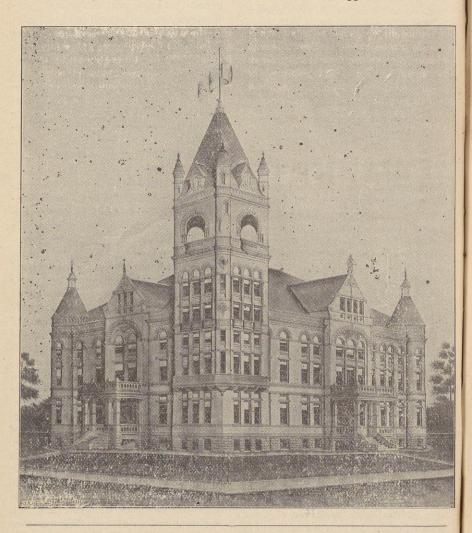
Is the Ivy's food at last.

Creeping on, where time has been, A rare old plant is the Ivy Green. —Charles Dickens.

We are under obligations to bother Geo. W. York, editor of the American Bee Journal and publisher of Cook's Manual of the Apiary, for a copy of the unique manual of Apiary, which had recently been revised by the author, about eight pages and seventy-five new engravings being added. This book contains much valuable information not found in others published in America. The price is \$1.15 by mail or \$1 when shipped with other goods. We will be pleased to receive your order for one of these books. Some time since Mr. Eugene Secor, general manager of the National Bee-Keepers Association, offered his resignation to that Assocsation. It was generally understood, as far as we were informed, that the resignation was accepted and E. T. Abbot of St. Joseph Mo., was elected to finish Secor's unexpired term. It now seems by irregularities of the election that Mr. Secor is still the general manager and will remain as such for another six months. We have the following from Acting Chairman Root, which we print in full:

"Some little time ago it was announced that Mr. Eugene Secor, General manager of the National Bee-Keepers' Association had sent in his resignation, and that the board of Directors had selected E. T. Abbot. of St. Joseph, Mo., to fill out his unexpired term. But the Board, in reviewing its work, after a great deal of writing back and forth during which valuable time has been lost, finally discovered that Mr. Secor's resignation was never accepted: that the proformally cedure was irregular and out of order by which Mr. Abbot was supposed be elected. Some complications having arisen, it was decided not to accept Mr. Secor's resignation, and request him to fill out the unexpired time, or till the next general election. To this Mr. Secor has agreed. All dues and membership fees, hereafter, should be sent, as before, to Mr. Eu-. gene Secor, Forest City, Ia., who is still the General Manager, and will continue to be such till his successor is elected and qualified."

When Dzierzon gave to the world the doctrine of parthenogenesis, he announced that the drone-eggs being unfecundated, the drone progeny of a queen would be of exactly the same blood as the mother, without reference to what drone that mother might have met. The opinion, however, has



The Proposed County Court House to be Erected at Higginsville, Mo.

In answer to many inquiries from friends and customers as to where there is a good place to locate in Missouri for good farm lands and honey resources, we wish to say that as far as Missouri is concerned we know of no better county than Lafayette. Here we have white clover, the linden tree, Spanish needle and the golden rod in abundance. All these produce good, marketable honey, and a total failure is something unheard of here, while the majority of years 100 pounds per colony of comb honey can be procured. Lafayette county is also one of the richest and most fertile counties in the state. The people are enterprising and progressive. THE PROGRESSIVE BEE-KEEPER.



[Continued from page 184.] prevailed with some that the blood of a drone is materially affected by the mating of his mother. The matter is a very practical one, and withal very important. Therefore, the article on telegony in this number will be read with interest. It is probably the fullest presentation of the subject that has ever found its way into bee literature. Although Prof. Cook is not undecided as to his own view on the subject, he seemed to give a fair hearing to both sides, leaving the reader to form his own conclu-ions.



NOTES FROM THE STAR APIARY.

S. E. MILLER.

Probably everyone knows that machinery works best if well greased, but I doubt whether many bee-keepers know that a smoker requires greasing. Yet they all know that at times a smoker gets choked up and wheezy. This is caused by the sticky, sooty accumulation being sucked back into the bellows, because the valve gets stuck and does not admit the air freely into the bellows. The more of this accumulation that gets sucked into the bellows the worse the valve will stick and the worse the valve sticks the more of it is sucked back. so that we have an aggravated state of affairs. To keep the valve from cleaving to the inside of bellows, oil it freely with machine oil or any good lubricant, and as often as it shows a tendency to cleave give it more oil. If the valve has become thickly coated with the soot, it may be necessary to take the bellows apart and put in a new valve. Then keep

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the valve thoroughly oiled and you will have very little trouble. This sooty accumulation is much worse in damp weather when the atmosphere is heavily charged with moisture, than it is in dry clear weather. We should therefore watch the smoker to see that it does not get stuck on itself at such times.

IN PUTTING on extracting frames, select three or four of the best all worker combs and remove as many frames of brood from the broodchamber. If any of them contain partly or all drone comb be sure to select them. Put the empty all worker combs in the center of the brood-nest, and the combs of brood that you have taken from the brood-chamber in the upper or surplus story, alternating them with empty combs. Place a plain zinc honey board between the two chambers and give only nine frames in upper story, if a ten frame hive, and only seven if an eight frame hive.

The brood will cause a part of the bees to immediately occupy the upper chamber and if there is any nectar to be found they will commence storing there at once. By the time you have to extract this brood will all be sealed, or have hatched and the combs filled with honey.

I am aware that some good authorities object to spacing the frames further apart in the upper or surplus chamber, but I know of no disadvantages in so spacing them, and there are several advantages to be gained. First, the cell walls being well-drawn out, it allows us to uncap the combs quicker and at the same time do a neater job than we can do if a part of the cells are shallow as they certainly will be if ten frames are used. Of course we get a greater portion of honey along with the cappings but if properly handled this honey is just as nice as that which has gone through the extractor. Second, we secure a larger portion of wax, and

and regardless of the opinion of some well informed bee-keepers, I am of the opinion that this wax is secured at very little expence to us, for bees; when handling large quantities of nectar or honey, secrete proportionately large quantities of wax just as a cow will lay on fat when she has all the grass and corn that she cares to eat. Third, we have a less number of frames to handle so that in extracting from ten bodies we do not have to handle more frames than we would have to to handle in extracting from nine bodies if each contained ten frames. This item above is worth considering in a buisy time.

BASSWOOD WILL BLOOM inside of a week. It shou'd commence June 10th if on time. White clover has almost forgotten to bloom, the plants that should have bloomed this year having been burned out by the drouth last summer. The weather is too cool to make flowers secrete nectar freely but we have had an abundance of rain and crops in general are growing fine, and we therefore have promise of a good flow from autum flowers and a fine setting of white clover for next season. Live and hope must be the Bee-keepers motto. Sweet clover commenced to bloom June 5th and promises well. Oh for a hundred acre field of it near my apiary.

Red clover as usual contains a large amount of nectar and if we had bees with tongues thirty-hundredth of an inch long what a harvest we would reap I am satisfied that a very little increase in tongue reach would give us a large increase in the amount of nectar gathered from red clover. Prof. Gillette in January 1892 Review says: "The length of corolla tube through which the tongue must reach, in the heads of red clover that I have examined, have varied between 34 and 37 hundredth of an inch. The extreme reach of the tongue beyond the maud -

bles in any bees I have measured has been .23 of an inch. It makes me wonder if it is possible that those who think bees have 'gathered honey from red clover can be mistaken and that they visit the blossom of this plant for pollen only." I can tell Professor Gillette that there is no mistake about it. Here is the way the bee does it: She alights on the head, thrusts her tongue into one of the corolla tubes, and taking a good grip on the head with her legs, forces her maudibles down into the mouth of the tube until one would think it must split open. A few days ago I tried to catch a bee in such a position that the sun-light would fall on the tube in such a way as to permit me to see just how far down the tongue would reach but was unble to get the right position, but I believe it can be done and am going to try again. I then pulled out some of the corolla tubes. and while I had no instrument for measuring I am satisfied that the nectar in some of the tubes extended up from the bottom .10 or more of an inch. Considering then that the nectar freuquently extends well up in the tube and that the bee forces its mandibles well down in the mouth of the tube, the reach is not so great as we might suppose from mere theory. If you have any bees that work on red clover you can see for yourself and while you are at it try to see how far the tongue can reach into the tube, for in many of the flowers the tubes are semi-transparent and the tongue can be seen through them.

Bluffton, Mo.

GOOD THINGS IN THE BEEKEEPING PRESS.

SOMNAMBULIST.

Linn promised much but extremely cool weather cut the flow short. Bees now working lively on mustard. But little surplus from the spring crop. Just enough honey coming in most of the time to keep bees swarming. Lots of work and poor pay.

The honey house discribed by F. L. Thompson in June Progressive is a valuable makeshift. The possibilities of tarred paper are as yet largely undiscovered.

Bee-keepers must and will keep up with the procession. Few understand better than bee-keepers there may be extravagance in economy.

It may pay the cellar wintering class to note Doolittle's difference between a cellar under any building and one entirely under ground.

Success in our business as in all others depends on very small things.

Quite a number report great damage from spraying having been done during fruit bloom. As matters now stand it is but a question of time when each and everyone of us will find ourselves among the crowd.

In some states the subject is being agitated and strenuous efforts will be put forth to secure laws for the protection of the bee-keeper.

Shall we enjoy a little more sleep, a little more slumber only to wake up some fine spring morning to find half our bees dead? Missouri bee-keepers are in need of such protection and more deserving. The Stahl Spraving outfits are sold just inside of the next state and with each one, instructions are sent out to spray while in bloom. Each year sees more outfits in the country. Many are sufficiently thoughtless to follow the instructions to the letter, while there may be some sufficiently heartless to rejoice in the discomfiture of another. It surely is not necessary to wait until half of the apiaries are destroyed before taking action.

In this connection it might be well to keep in mind the old adage, "tt is of no use to lock the stable after the horse is stolen." In an essay on "Kinks" in extracted honey production "furnished the Chicago convention by R. C. Aikin and published by Ameri-

THE PROGRESSIVE BEE-KEEPER.

can Bee Journal we find much that is interesting from which we cull the following: The apiarist that can take out or avoid all the hard kinks in extracted-honey production (or in comb. either) must be expert indeed. He who thinks that honey-production on modern lines is without kinks, will find it one of the kinkiest business he ever undertook. "Producing extracted honey requires less skill as an apiarist but it takes quite a considerable more capital invested in hives and machinery: takes more hard work, and, unless you keep in mind, and a vast amount of brood being reared in its place, you will starve your bees in winter and spring. Remember too that extracted honey will keep indefinitely, so that you have your time to accomplish its marketing; but with comb-honey it must be sold and consumed within its first year."

Extracted-honey colonies will not provision the brood-nest as does a combhoney coloney; and, going into winter with more bees and less honey, calls for a larger brood-nest for extractedhoney colonies than for comb.

Do not be afraid to have two supers to the colony, it pays to have plenty of room, saves having such a rush in extracting when the flow is on and you are so very busy you don't have time to eat. You can so much more easily and quickly drive bees down from a top super into a second one, the second being put under the full one; but have the second one on long enough so it will be licked dry and be occupied-you can not successfully smoke down into a wet, sticky super, and not very well through an excluder. Extra supers cost less than hired help-the hired man takes his pay and goes, the supers are paid for and you still have them as so much capital and wealth. If it is a question of hired help or more supers, it is big economy to get the supers.

No, no, never think of getting along

without queen excluder when working for extracted-honey. I have tried both with and without, and I must say that a lot of old zinc that leaks queens every now and then is almost more than I can stand, let alone being entirely without excluders. This is a very kinky place, and for the sake of common decency and cleanliness, for the best grade of honey, and for speed and easy manipulation, use queen-excluders.

Stop the old, fussy method of educating your consumers to expect honey always liquid. The same amount of effort and energy spent in educating to use (or buy) candied honey will accomplish the desired end, and save an immense amount of trouble and expense. Produce for home trade, and in a retail way for table use; this is the solution of the problem that is now before the producer of extracted-roney.

Hasty points out that on the long-vity of worker bees the Chicago Convention folks seem not to strike any oil worthy of Spindle-top. 'Spect they mostly kept the ages of their bees no more accurately than certain ladies are accused of keeping theirs. Page 260.

This same Chicago Convention report stirred up the venerable Dr. E. Gallup, he having sent in several papers to the American Bee Journal from which the following items are taken:

A writer some time ago in the American Bee Journal said that he had purchased lots of queens, and but very few lasted one year; 80 percent of the very light-colord ones died the first winter, and none gave the satisfaction of those of his own rearing. I can fully endorse what that writer says; it is utterly impossible to receive the profit from such short-lived, worthless queens that one can from one long-lived, properly reared one; and the former are a loss to the party introducing them, every time.

Why, gentlemen, don't you know that it is the longest-lived bees that do the most work, and out-of-door work ct that? I know that the very best and most profitable colonies of bees are reared from long lived queens—queens that live 5 or 6 years. On the other hand, the least profitable colonies and the shortest-lived bees are those that are reared from queens that live only from 6 to 24 months

Perhaps no one has had any more experience in testing queens from as many different queen-breeders than I. As I have been a prominent writer, queen-breeders would send queens for me to test in the hope that I would recommend their stock, especially when the great fad was for fancy color. Now the fad is long tongues. But, gentlemen, and ladies, too, I want to see another fad, and let it be long-lived bees, both queen and workers. Neither their tongues nor tails will be shortened any by carrying out that fad.

Allow me to tell how to rear shortlived queens, and short lived-workers, so that the merest novice can run an apiary for profit in two seasons, and never make a mistake. Understand that I have been "through the mill" it is no guess-work or theory with me. Now we are ready to commence.

Take a small box say 6 inches square, fit in some comb containing some eggs and larvae just hatched. Now get a small quanity of bees and place them in a box with the comb; place them in a dark room or cellar, and in about three days set them out and let them go to work, and if they succeed in rearing a queen you will have a short-lived one, and she will rear short-lived workers. Don't bother your head about whether your nucleus contains old workers or nurse-bees, it won't make so much difference only the fewer nurse-bees the nearer you come to starving the embryo queen.

Now allow me to tell how to rear long-lived queens and bees. My 14 year old son takes quite an interest in bees, and he has made two 9-frame Langstroth hives all under the same roof, side by side, so that all can be turned into one hive. Now when all are full, and if the two queens do not fill to suit with brood we will fill with hatching brood from other hives, so as to have an immense quantity of nursing-bees, and bees of all ages. Now in a hive of that capacity, and filled in that manner, we expect to rear longlived queens and long-lived workers. and we shall not be disappointed. I know positively, by actual experience, that the lifetime of the bees from queens reared under the best possible conditions is fully three times as long as those reared under the opposite extreme.

When in a reminiscent mood he is delightful. In one of these he tells of bees which occupied a basswood log which was six feet long and has two hollow branches about 12 inches longer than the main log, was nearly 18 inches in the clear inside the hollow and was completely filled from top to bottom. Out of this swarm was made "four excellent colonies." At another time he speaks of his trip to the Cincinnati convention.

I roomed with Adam Grimm and we discussed the queen-breeding theory thoroughly, and when I bade him good-bye, he said, "Gallup, next summer I will send you a queen that is a queen." And he did. She was one of the very best queens I ever ownedprolific, long-lived and reared longlived workers. She lived to be 6 years old. Those bees were extra honevgatherers. When I got my first large hive, whose colony produced 600 pounds in 30 days, I hived a large prime swarm on the 10th of May from my Grimm stock. As soon as they commenced to build drone-comb I filled out the balance of the hive with ready-made worker-comb-48 combs, all on the ground floor, and the queen spread herself grandly.

How many hold fond memories of conventions? That there is something wrong with at least a part of the queen rearing business almost anyone who has invested in queens can assert. Is it because the tendency of the times in general is towards cheapness? I am sometimes led to think that in the great rush to undersell someone else things are offered so cheap that they can be nothing worth having. They are undoubtedly so cheap as to prove quite the reverse in the end. As an example the florists will advertise to send 10 or 12 different plants for 25 cents and the people will jump at the apparent bargain and rush in the orders, and have all kinds of vision of the beautiful flowers they will receive, and when the same arrive they are so diminutive as to almost need a magnifying glass to discover. The same 25 cents spent for but one or two plants would have given more satisfaction.

Again some of us can remember when calico and jeans were $12\frac{1}{2}$ and 75 cents per yard respectively and were good enough to wear anywhere, now they can be bought for 3 and 25 cents per yard and are scarcely worth making up.

Whether these changes are for better or worse is for the buyer to decide. As nothing is secured without the expense of at least time and labor and oftimes capital, is it wise to expect much for little? At least Father Gallup has done his duty in warning us to fight shy of cheap queens.

Several women bee-keepers are lending interest to the American Bee Journal these days. Miss Emma Wilson a regular contributer goes over the ground in detail and leaves but little unsaid. Her article on "how to introduce a queen successfully" carries many of us back to those days when all was new and novel as well as trying and mistifying. Mrs. F. S. A. Snyder gives her ideas of dress (A subject women are ever interested in) for women bee-keepers.

In advising woolen skirts we loose sight of the fact that the honey-bee has implements on the three little claws of its hind legs shaped like a hoe. a trowel and a rake, and these little delicate implements catch on the wool and cause no end of unnecessary annovance to the bees. I know if I wore woolen skirts in the apiary the back. though "the apron covers the front," would be full of struggling, stinging little prisoners, caught on the fuzzy material. Nothing annoys me so much as to see somebody enter my apiary with a felt hat on. I always keep two or three straw hats and suggest an immediate change, with an extra veil.

Clean, starched clothes, and why not duck, short skirts with bloomers, no matter what color, so they are clean? I wear black cotton shirt-waists (because light colors fade and white soils so quickly), and clean cotton skirt. I rarely ever get a sting. I became so conceited about my method of handling bees that I rolled up my sleeve and went at a three-story hive with about 40,000 bees in it, and I got three or four stings. I reasoned it out and came to the conclusion that the arms and hands perspire more or less when warm, and the little bees in constant contract with the exquisite perfume with the flowers quickly discern that it is living flesh, and sting immediately.

So I tride this experiment:

I got an old pair of kid gloves 3 or 4 buttons, and a size too large for me, so they will come up on the wrist. Then I cut the finger-tips off to the second joint, and warmed beeswax and rubbed it well in, and then placed them in a warm oven so it would soak and permeate the gloves thoroughly. I have worn these gloves three years, and rarely ever get a sting. They never sting the gloves, and I can wash my hands, as the wax protects the kid. In an article on making rapid increase of colonies she tells us when feeding to stimulate if we can only keep the "bees from taking a noisy flight in the air proclaming to the whole apiary that in some misterious manner their stores have been increased" we can prevent robbing to a large degree. She does it by contracting the entrance to admit the passage of one bee at a time and by the use of wire netting makes the outlet at the extreme end of the former entrance. Mrs. C. A. Ball gives some of her experience as follows.

With regard to taking off the honey, when I find a super about full I pry it free from the hive with a screwdriver, puff in a little smoke, and place another super with empty sections on the hive, under the full one. In a day or two, about 3 o'clock in the afternoon, I sally forth with smoker and bee-escape board, and raising the upper super just enough to blow in a little smoke, slip the escape-board between the two supers and leave them until about 5 o'clock next morning. Then I take off the super full of honey from which every bee is gone, and the colony does not know it has been robbed. Everything is peaceful.

I do not know that I ever enjoyed greater satisfaction than when walking through the dewy grass last summer carrying burdens of white honey, before the majority of people were stirring. With me it has been both success and failure, but the bees have quite a balance in the credit column, and I hope to go on with a work that has been of more value to me than can be reckoned by dollars and cents, in the lessons of patient faithfulness under difficulties learned from the bees.

'Tis passing strange that, with teaching already overcrowed, and colleges annually turning out hundreds yes thousands future applicants, and the devotees of the needle already working at starvation prices, that it should not occur to some at least, that to her avenues stand open to be found in which to earn pin money or a livelihood as the cases may be.

Can it be possible it is due to what is commonly termed 'old fogyism?' The opinion seems to prevail, in some places, that, for the gentler sex, other employment than these is devoid of respectability.

The sooner such communities wake up and get out of the old and deep ruts, the better it will be for mankind generally, and said communities particularly.

I am proud to learn our Will Ward Mitchell had published two more books of poems which are every where received with welcome. That little snatch of sunshine entitled "Littles" (page 169) June Progressive is a complete volume in itself. Would there were more to scatter sunshine and brightness through some of the prosy, sombre lives.

The Jeffersonian, published at Higginsville, Mo., recently put out an extra which was denominated "The Higginsville Jeffersonian Trade Edition."

The opening article was headed "The Higginsville of To-day." As the home of the Progressive a few clippings from this article would not be amiss:

Surrounding the town on all sides is a beautiful rolling prairie country. In early years this was the great hemp producing region, but wheat, corn and oats have now taken the place of the hemp, and it has developed into one of the most fertile and productive sections in the grand old state of Missouri. The eye does not travel over a boundless expanse of level land, nor does it find a continual succession of hills. A gently rolling surface greets the beholder-sloping fields clad with luxuriant herbage and occupied by numerous herds of cattle; level areas laden with every species of grain; ravines and creeks hidden in patches of timber; here and there a spot shedning forth a halo of scenic grandeur.

The thrift and enterprise of the Missouri farmer has been proven in various ways in Lafayette county, and in none more explicitly than in the cultivation of choice apples. This section of the country is right in the heart of the famous fruit belt and acre upon acre of magnificient apple orchards great the eye at almost every turn. We say without fear of contradiction that there is not a locality in this or any other state that produces better apples or any more of them than we do right around here.

The town has grown steadily and solidly year after year; never a fictitious boom being apparent, but a healthy, active growth being ever prevalent, according as the surrounding country has prospered.

Of the editor of the Progressive and the Leahy M'f'g. Co., the Jeffersonian has to say:

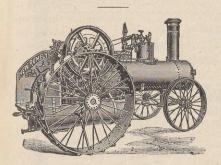
"From a little 14x20 work shop, with foot power, to the present spacious and commodious puarters, in a few brief years, shows push and enterprise to a marked degree, does it not, and will bear us out, in the statement that our subject is a recognized authority on bee matters. As a further proof of his knowledge on this subject, he has been honored by 'he entomological departments of many state colleges, and is a **mean** ber of nearly every **bee society** in the world.

"So rapidly did this business grow under the careful management and wise guidance of Mr. Leahy, that in 1890 it was incorporated under the name of the Leahy Manufacturing Co., and is today not only one of the most substantial enterprises in Lafayette county, but is the largest of its kind west of the Mississippi river. This factory has used as high as sixty-five car-loads of lumber in one season in the manufacture of their goods. which are known as the Higginsville product, and are shipped to all parts of the world. It is not an uncommon thing for this company to make foreign shipments, one having but recently been made to Peru, South America. The most kindly feelings exist between employer and employes at this factory, and although at different times hundreds of men have been employed, none have ever been discharged on account of misunderstandings or petty grievances.

"Mr. Leahy has also had an extensive experience in newspaper and printing business For a time he conducted a well-equipped printing office at the factory, and later consolidated it with the Jeffersonian, of which paper he was the manager until a few months ago He is also the editor and publisher of the Progressive Bee-keeper, a journal which has a wide circulation among those interested in bee culture.

"Personally and socially he has made many friends on account of his affable and courteous manner. He is promiinent in lodge and fraternal circles, having been an Odd Fellow and a Woodman for twelve years, at times holding the highest offices in the gift of the local orders, and is also a member of the Select Knights and Ladies. His friends are proud of his successful business career; Higginsville honors him as a citizen and the founder of such an enormous business as the Leahy Manufacturing Company yearly transacts, and the Jeffersonian wishes for him many more years of continued prosperity."

Were the readers of or the writers for the Progressive to dare to offer congratulations or otherwise endorse onehalf of what the Jeffersonian has been pleased to say, they would but be accused of the dreadful crime of "taffy giving," or would have "suavity" or some other equally obnoxious epithets sneered in their faces, so I leave the matter with the readers without further embellishments. RUMELY THRESHING MACHINERY.



While advanced methods in agricul. ture are gradually unfolding themselves the demand is keeping pace for the best implements and machinery that the market affords. It is but natural that this should be true in all lines. but there are special reasons why it should be true in a matter of magnitude of threshing machine outfits Chief among them is the amount of money that must be invested. In no other implement that has to do with the seeding, cultivation, harvesting of the crop, preparing for the market or other farm use, is there such a considerable outlay required as in the matter of threshing machinery. It is not purchased for a season's work on a single farm, but usually for many crops for all the grains and grasses and to make a profit for its owner above first cost and operating expenses; it must do duty for a series of years. If for no other reason it would seem to be imperative, on this account alone that machinery of the widest uses and the best adaption to each as embodied in the best makes to be found, should be sought by the threshermen.

In this connection and always when speaking of threshing machinery the mind reverts to the Engines and Separators manufactured by the M. Rumely Co., of La Porte, Ind. Having been in the threshing business since 1853, their machines have been put to a good long test. Their popularity as told by a number of sales annually as compared with those of other threshing machine manufacturers, has outrun even what their long years would seem to warrant. The reason must be sought for in the instrinsic worth of the machines themselves. We have not the space to enter upon a recitation of the many distinguishing points of excel-



lence of the Rumely machines. We are producing a cut both of the New Separator and the Traction Engine herewith. The advertisement is running regularly in our columns. Any of our readers anywhere, who are interested in threshing machinery, should look it up and write to the Rumely Co. for their catalog. It will be gladly sent free for the asking, and will put the inquires in the way of possesing a threshing outfit of the highest type of usefulness.

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a good profit every year. No crop failure. Any one can keep them. If you are now raising poultry get some bees and fruit. They will pay you. The

Poultry, Bee and Fruit

Journal is the only journal devoted exclusively to this money making combine. Its readers tell how they do it, give their experience and answer any questions. It has a free Exchange Column for the use of its readers. It will cost you 25 cents a year or sent on trial 6 months for a dime; stop it if you don't like it. Send today; you can't get a good thing too soon. Address,

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The Belgian Hare is the finest meat in the land, tender, white, transparent, juicy, and delicious in flavor, is easily raised, sells dressed at from 25c to 40c per pound. The Hare is wonderfully prolific and herein lies the great profit to be derived from their culture.

One Doe has been known to be Mother, Grand Mother and Great-Gand Mother to a family of 150 Hares in one year.

The offspring from one Doe will produce more meat in one year than any other animal. The Belgian Hare will no doubt solve the meat problem-as any family with a back yard can easily raise their own meat. But as the demand for breeding stock at good prices is now greater than the supply, very few hares are sold for meat. Breeders are getting rich. Some extra fine specimens have sold for as high as \$300. But the business is now getting down to a Meat and Fur basis-and the field for new breeders is very promising. Two boys made \$800 last year from a \$30 investment and many others in this section have done equally well, send for our free list and Booklet telling all about this new industry.

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Warrenton, Ohio.

oing for the Doctor

through the storm and darkness while the suffering one at home is in danger, perhaps of death, is a terrible trip. Why not have a good, sure family remedy in the house? One that has proven a life saver in thousands of cases during the last forty years.

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Think what a world of terror and anxiety was saved this man. DISPENSES WITH DOCTORS.

DISPENSES WITH DUCTORS. Middle Grove, Illnois, June 4 1901. We have used Watkins' Vegetable Anodyne Linimet.t in severe cases of flatulent collo: have employed veterinary surgeons be-fore, but rely entirely on Watkins' Liniment now, for family useas well as for stock. WALTER DIKEMAN.

Waking Liniment is not only a great thing in cases of serious mjury through accident, but is always helpful in cases of Cold, Colic, Diarnhees, Dysentery, Indigestion, Cuts, Burns, etc. It is equally good for **man** or **beast**. If by any chance we have no agent in your vicinity, write to us, and we will see that you are supplied.

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A TREAT FOR ALL. Our new Cook Book and Home Doctor.containing a hundred pages of valuable information in cooking, gardening etc. is out for '02. We mail lif free to anyone sending his name and address on a postal card. Write at once and address at once and addres

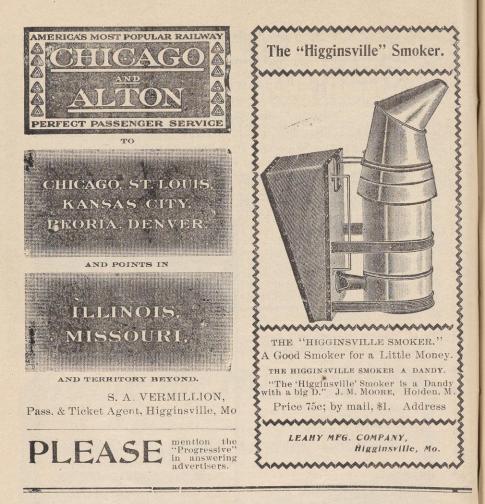
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We also manufacture TANKS of either wood or galvanized steel, all sizes, any form, and for all purposes. Price list free.

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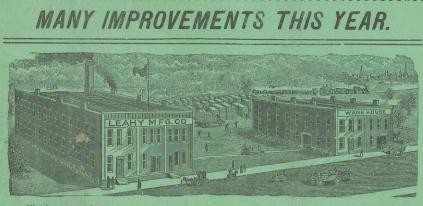
S a book of nearly 100 pages (the size of the Review) that I wrote and published in 1891; and I will tell you how I gathered the information that it contains. For 15 years I was a practical bee-keeper, producing tons of both comb extracted honey; rearing and selling -thousands of queens, reading all of the bee books and journals, attending conventions and fairs, visiting bee-keepers, etc., etc. Then I began publishing the Review, and, for several years, each issue was devoted to the discussion of some special topic; the best bee-keepers of the country giving their views and experience. "Advanced Bee Culture" is really the summing up of these first few years of special topic numbers of the Review; that is, from a most careful examination of the views of the most progressive men, and a thorough consideration of the same in the light of my experience as a bee-keeper, I have described in plain and simple language what I believe to be the most advanced methods of managing an apiary, for profit, from the beginning of the season through the entire year.

A new and revised edition, which includes the improvements of the past ten years, will be out June 1st. It will be as handsome a little book as ever was printed. The paper is heavy, extra machine finished, white book, and there will be several colored plates printed on heavy enameled paper. For instance, the one showing a comb badly. affected with foul brood will be printed in almost the exact color of an old comb. The cover will be enameled azure, printed in three colors.

Price of the book, 50c The Review for 1902, and the book for only \$1.25. You can send in your order now, and the back numbers of the Review for this year will be sent at once, and, as soon as the book is out, a copy will be mailed you.

W. Z. Hutchinson, Flint, Michigan.

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We have made many improvements this year in the manufacture of bee supplies The following are some of them: Our lives are made of one grade better lumber than heretofore, and all that are sent out under our new prices, will be supplied with separators and nails. The Telescope hive has a new bottom board, which is a combination of hive stand and bottom board, and is supplied with slatted tinned separators. The Higginsville Smoker is much improved, is larger than heretofore, and better material is used all through. Our Latest Process Foundation has no equal, and our highly pollished sections are super bindeed. Send 5c for sample copy of these two articles, and be convinced. The Daisy Foundation Fastener—well, it is a daisy now, sure enough, with a pocket to eatch the dripping wax and a treadle so it can be worked by the foot. Prices as low as conservative, considering the big advance in naw material. If you have not received our new catalogue, send for it at once. Sample copy of the PROGRESSIVE BEE-KEEPER free. Address,

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is one that will not disintegrate quickly, but form a hard, durable coating as impervious to atmospheric influence as it is possible to make a covering of this character. THE BEST BEE HIVE PAINT MADE.

NEW ERA HIGH GRADE PREPARED PAINT

meets all these requirements perfectly, as it is made from the best carefully selected materials only. It may cost a few cents more per gallon, but considered from the standpoint of DURA-

BILITY and SATISFACTORY RESULTS, it is by far the most economical article that can be used, and its intrinsic worth is bound to be appreciated by all careful and painstaking bee-keepers.

LEAHY MFG. COMPANY, HIGGINSVILLE, MISSOURI.

One quart\$.55 One-half gallon ... 1.00

PRICES. 55 One gallon \$1.60 00 Five-gallon can. per gal... 1.50