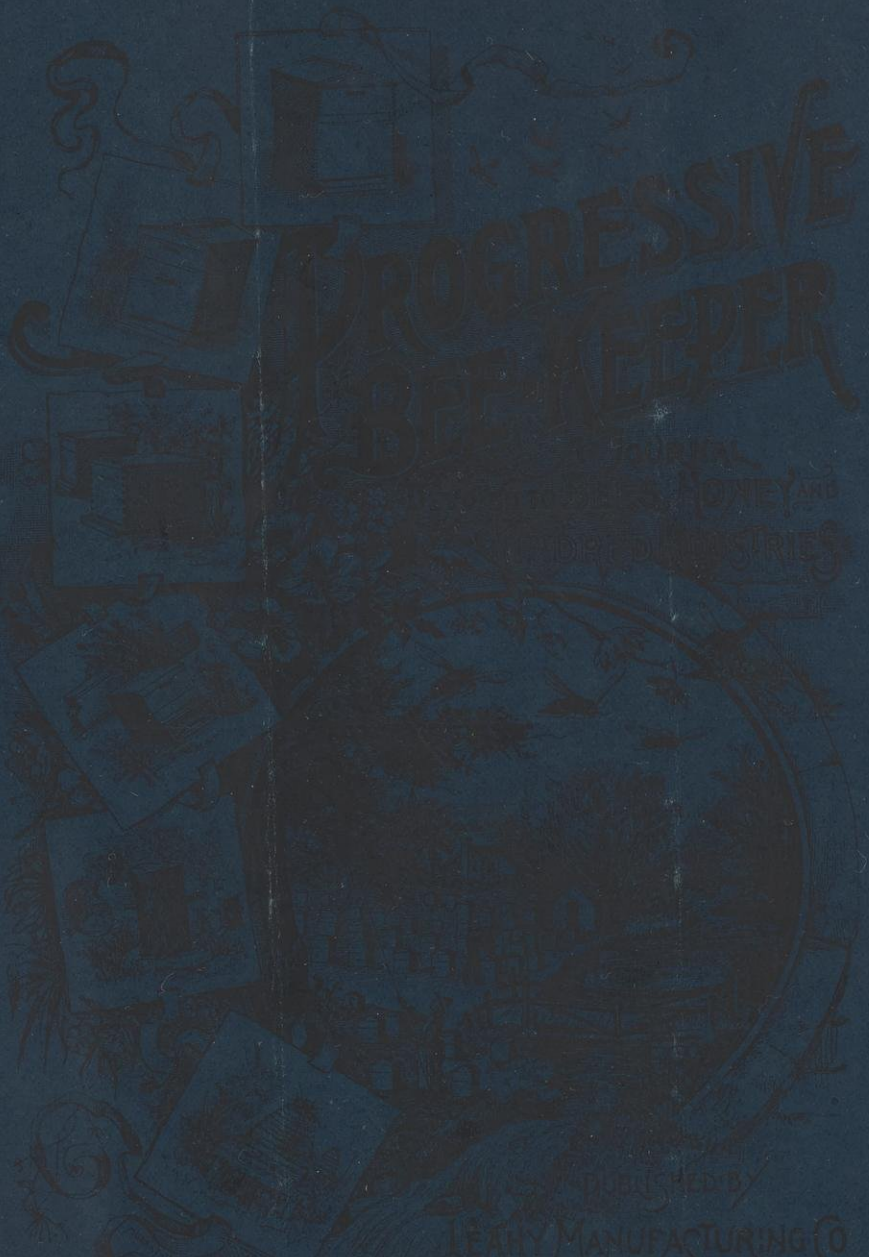
The progressive bee-keeper. Vol. XI [XIII], No. 12 Dec., 1903

Higginsville, Mo.: Leahy Manufacturing Company, Dec., 1903

DECEMBER 1903

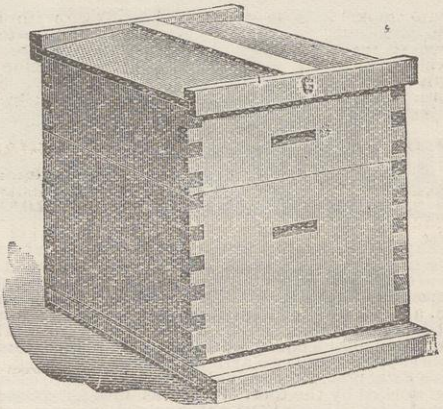
THE PROGRESSIVE BEE-KEEPER



PUBLISHED BY
THE LEAHY MANUFACTURING CO
HIGGINSVILLE, MISSOURI

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

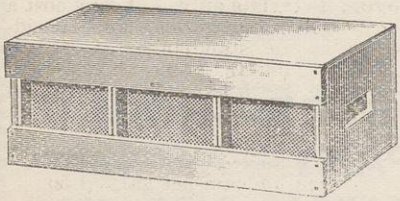
Nothing so Profitable on a Farm



...as... a Few Stands of

Bees.

They work for nothing and board themselves, and require but little time to handle. We have just received a carload of the famous "Higginsville" Supplies, consisting of dovetailed hives (like cut), sections, foundation, extractors, shipping cases, smokers, bee veils, swarm catchers, etc.....
Write for new 1903 catalog, just out.



Topeka Bee Supply House
Topeka, Kas.

The
Progressive Bee-Keeper.

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

50 Cents per Year.

Published Monthly by Leahy Manufacturing Company.

Vol. XI. HIGGINSVILLE, MO., DEC., 1903. NO. 12.

Table of Contents.

NOTES FROM THE STAR APIARY.

S. E. MILLER.

The report of the experimental apiary of the Texas A. and M. College, on page 267 October Progressive, is interesting and instructive. I consider the experiments on bottling honey of interest to every bee keeper who is following the bottling for a living, for although he may not have occasion to bottle his honey at the present time, he may at some future time find it to his advantage to do so, and it is therefore well for him to know to what degree of heat it may be subjected without impairing the flavor.

The experiments on rendering wax from combs, etc., of various ages while imcomplete, are nevertheless interesting. It is somewhat surprising that only 80 per cent of the wax could be extracted from five-year-old combs by the steam press, when by the same method as much as 76 5 per cent was secured from slum-gum, which contained only 24 per cent of wax to begin with. While the five-year-old comb contained 36.3 per cent the experiments with covers of various designs would seem to indicate that there is practically no difference in the degrees of heat over the excelsior with shade board of nearly four degrees

I cannot agree, however, with the comments of the author that a shade board is better than a specialty devised cover. While they may give slightly more protection they are certainly an abomination and a nuisance. I have had practically no experience with shade boards and am not anxious to gain any. A shape board that will

keep its place without a weight to hold it down, must necessarily be heavy and cumbersome to handle. If not heavy enough to retain its place by its own weight it must be weighted down with stones, bricks or some other cumbersome and unsightly article, or else in some way be fastened to the hive body or cover, all of which takes extra labor in manipulating.

Probably I cannot thoroughly sympathize with the bee keeper who is not situated so as to have ready access to suitable shade simply because I am fortunately situated myself in this particular respect, but I really think there is little or no excuse to be offered for shade boards. Why not have the apiary so placed that the bee keeper as well as the bees may enjoy the cool shade during the hot summer months? —just the time when we must do the most work with them.

My first choice for a shade is the shade furnished by nature, by the broad spreading branches of our natural forest trees, and in order to secure such shade I would be willing to move the bees a considerable distance from the dwelling. I know that many bee keepers have not access to such shade, and in that case I should take the second choice which is a suitable shed which need not necessarily be very expensive and in some respects is better than shade trees. It is not actually necessary that the roof of such a shed should turn water and therefore it may be made of cheap material, though, of course, if one has the means it would be best to erect a good, substantial structure.

No doubt some will object to this, claiming that where they live material is too expensive and that they have too many colonies to thus protect them. In that case I tell you what I believe I would do. I would get some posts and poles and erect a frame work and cover it with brush, straw, hay or some other material that would afford a shade, and fasten it down with wire to keep the wind from blowing it off.

To have your bees in the full glare of the summer sun is cruel, and to work in such a place yourself when it might be avoided is ridiculous. Imagine a man on a clear red hot day in July going up to a hive; first lift off a heavy stone and place it somewhere, then a shade-board and place it somewhere else, then the hive cover and place it somewhere else, if he can find room for it without walking three or four steps. He is then ready to commence work in the hive, with great drops of perspiration running down into his eyes. Oh my! How would yo like to be the bee keeper?

Across the way is a neighbor beneath the broad spreading branches of a stately elm, looking as cool as a cucumber. He goes to a hive, removes the cover and is ready to manipulate the frames. Which would you rather be?

Unless a shade board is as big as a barn door it only shades a part of the hive at a given time and affords little protection earlier in the day than 10 o'clock a. m. or later than 3 o'clock p. m. and in this climate the heat is usnally the most suffocating just about 4 o'clock p. m. just when the sun has dropped low enough in the west to pour its red hot rays underneath the shade board and give the south and west sides of the hive a regular broadside.

Some questions to bee keepers: Where are you going to sell your honey? Are you going to put the price on it and sell it or are you going to ship it to some large city away off and let some one else put a price on it? Have you noticed the quotations in the bee journal? If you ship your extracted honey and it sells at six and a half cents per lb. after you deduct cost of cans, freight and commission, how

much per lb. will it net you? How much will it be per gallon? About sixty cents? If the price goes down to half of what it is, will you still be a bee keeper?

Bluffton, Mo.

MAKING PROGRESS ALONG THE BEE LINE.

A. E. WILLCUTT.

Bee keepers as a class have surely made great progress during the last half century. And yet there are many who have made but little if any progress, and are still in the same old ruts that their fathers marked out, perhaps more than half a hundred years ago. Wise? Well, I should say they were. You cannot tell them anything about bee keeping, for they learned all about bees over forty years ago. Oh no! they don't want to subscribe for any of the bee papers—"no time to read them." They say, too, "there's no use 'puttering' with the bees all the time—just let them alone and they'll take care of themselves." When one meets such a man (I will not call him a bee-keeper) he should save his breath—might as well be blowing soap-bubbles—for such a man can't be convinced that there is a better hive than the old box hive, or that bees do not gather wax from mud.

I am pleased, however, to note that most of the young members of the bee-keeping family have started in this side of the box hive days and are trying to keep in line with those who are making a success of apiculture

How are we to make progress along the bee line? Well, I'll tell you one way. Take an interest in the business, also take the Progressive Bee Keeper and several more of the leading bee-papers, adding at least two or three of the best text books on bee-keeping procurable. Then read and study them carefully, being willing to profit by what others have suffered. The next thing is to "keep at it." Now is a good time for those who have them to read over all the back numbers of their bee papers which came during the busy season. You will likely find many little "kinks" which you failed to note at the time, as they were likely read and laid by. You will be quite sure to find some copies which you failed entirely to read.

One should not try every new theory and invention which arises (?) but he should try those which appear reasonable and would, if successful, be an improvement over his old methods.

Swift River, Mass.

GOOD THINGS IN THE BEE-KEEPING PRESS

SOMNAMBULIST.

The Progressive came in on something like its former time, for which we felt duly thankful. We have to miss things sometimes to enable us to appreciate them the better, or as they should be. But I felt like donning my fighting harness when that cover greeted me. I do really want to protest against that color, unless you compromise by changing the color of ink thereon.

Where, oh! where, is that peaceful rural scene which is so warmly welcomed by all bee-keepers, and our lady bee-keeper with her swarm catcher; her appearance is so encouraging, and long as the cut has been in use, I never fail to admire it. I have placed it among the treasures of my portrait gallery.

S. E. Miller forcibly presents the selling problem from a practical standpoint, but I have a little quarrel with him too. He falls a little short, or does not go far enough.

Educate the bee-keeper, well and good. S. E. M., being one of the public teachers, might just as well begin to help. True he puts it plain enough, how it is liable to injure his trade, if his brother bee-keeper presists in taking 15 cts when 16 can be had. But that is not telling how he managed to secure the sixteen cents. That's the vital point. Mr. Miller having been in the mercantile business, if not a natural salesman is most probably a cultivated one. He demands that we make a salesman of the be keeper. All right, that as the principle is all right but is it practical?

The middle man, through his exorbitant claims, most probably has earned the exceriation which Mr. Miller has given him, but he is still in the ring, and most likely to stay, and as he is handy to some if not a necessity, perhaps it would be as well to begin to learn how to handle him. Perhaps it might be claimed that the latter would be more difficult than the handling of the honey.

I only speak from my experience. In learning my salesmen I am limited in numbers and kinds of people, but when attempting to retail I am forcibly reminded of the "many men of many minds" it takes to make our world. Surely I am not alone in the discovery. Of one thing I am assured, and that is I am more than willing to shirk an acquaintanceship with some of them, and permit my salesman that privilege, paying him a reasonable allowance for the same. Cut prices create little but havoc, and I certainly do not advocate any method involving their use. The specialist usually does, and certainly should get the "top notch" prices. The honey he produces is not especially better than that of others, but he understands the difference between fancy, good and inferior sorts of honey and knows enough not to put upon the market an inferior article. Being a specialist he attends more closely to the minor points which command respect, neatness, cleanliness and all around appearance of his product. His being generally known and a honey producer establishes for him a credit, that is the people look up to him as to matters connected with honey.

The plan of selling that will reach the consumer with the least expense will, in my opinion, prove the most accepted one. Will Mr. Miller or any one else give us plans to this end? Even a suggestion might serve as a part of nucleus from which to formulate successful methods. By all means if there's any thing new along this most interesting and practical line, let's have it

Among Gleanings Nov. 1, "straws" we find:

"I suspect that it is a mistake not to

give a puff of smoke at the entrance on opening a hive, if smoke be needed at all. The guards at the entrance are the ones on the lookout against intruders, and the least jarring of the hive, as in removing the cover, will start them on the war-path. An initial puff of smoke at the entrance will save stings, and I think it will save smoke."

Editor E. R. Root, in his comments, calls our attention to one fact that may be of use to the novice, in discovering the where-abouts of the queen when swarming is on.

"There are a few stragglers in a swarm that are looking for the queen. It is these bees, if she be crawling in the grass around the hive, that will find her. It is much easier to see a little cluster of bees than a single individual queen in the grass. I just referred the matter to our Mr. Phillips, who has had large experience in the production of honey in Jamaica, and who has worked for us a whole year. In both localities he said he was in the habit of finding the clipped queen by the cluster of bees around her." —Ed.]

In the same department in Nov. 15 we find:

"What a warm fall we're having! Here it is Nov. 2, and more like summer than fall—bright sunshine, balmy air, and bees flying gayly." [The same here.—Ed.] Not in the least ahead of "old Missouri."

"Of all plans offered for automatic hiving, it's just possible that the one suggested by G. W. Strangways, page 929, is as good as any. Set the hive up where a clipped queen wouldn't easily get back into it, and the swarm would find their way into a hive sitting on the ground." Sensible.

Mr. Doolittle, p. 914 speaks of putting dummies in ten frame hives when sections are given It should be added that, if the supers cover the whole of the hive, bees will not do the best work in the sections over the dummies. Possibly this might be obviated by mixing the dummies among the brood-frames. That might seem a bad thing, and possibly it is; and yet after trying it in a few cases I could not see that a dummy in the brood-nest did any harm during the harvest. Of course it would be a very bad thing at other times.

While it would be too much to obtain that this kind of hay cannot be grown without bees, yet it is safe to say that a much poorer crop would be the result without them. Now these anti-bee fellows will make capital of that, and say you are claiming that bees aid the growth of the green leaves. Of course you mean that a crop of seed cannot be grown so well without bees, and thus the hay crop will be indirectly injured; but the presence or absence of bees can have nothing whatever to do with the growth of the hay itself. [Technically speaking, your point is well taken; but in the aggregate, taking one season with another, my statement is correct. Without good seed—seed that will germinate—the plants will be scattered here and there, a good many missing, and the field will be correspondingly poor for many years to come, or so long as the old roots are allowed to grow hay.—Ed.]

The editor reminds us that roofing-tin, like many other articles, is not what it "used to be" and is entirely too short lived to be practical. He tells us that "A very good substitute for tin is muslin soaked in white lead. I saw some excellent covers protected with this material, in Colorado, that had been in use several years, and were good then. The cloth will take up the oil; and if it is painted occasionally it probably will outlast tin a good many times over; and, what is of considerable importance, it is much cheaper."

In reference to sainfoin as a honey plant, and bees injuring orchard fruits, he quotes from "apicultural report of

the central expermental farm," Ottawa, Canada, as follows:

"It has been generally thought that the little white clover or alsike produced more honey; but I have found that the sainfoin clover gives, I am safe in saying, a greater amount of honey than the white clover will; and it gives also a good amount of fodder per acre. This plant . . . never gets too woody to be used as a fodder . . . When we can get farmers to sow sainfoin as fodder, bee-keeping will have a boom, and will be far more successful."

"Perhaps the experiment that will be of most interest to our readers is one made to determine whether bees injure our orchard fruits. The test was made with peaches, pears, plums, grapes, strawberries and raspberries. The question of "bees and fruit" has been a vexed one for years, as we all know: and a certain class of fruit-growers has been persistent in its denunciations against the honey-bee. The results of Mr. Fixter's experiments have been, like those of all others, fairly made; namely, that can not and do not injure good sound fruit, but take the juices from those already punctured."

As to house apiaries the same authority tells us the "House apiaries were recommended for those living in cities or other places where a good plot of ground could not be obtained. The colonies kept in the same were said to do better during severe weather than those in the yard, and they were greatly protected from the inclemency."

F. L. Morrill pictures a case of robbing, in which he tried everything that had ever been heard of to stop deredations with no success, flooded them with water, smokes them with sulphur smoke, exchanged his hives all without result and went home at night ready to sell cheap or give away every colony he had. Being convinced the robbers must be killed if the bees were saved he used a painter's torch with which to burn the robbers to good effect; even with this destructive instrument he worked almost all of one day before the effects were very decided.

G. C. Greiner says: "I am not a very heavy smoker, but when I expect a very hot time I always light it, and lay it in a great measure to my pipe (and gentle treatment) that I can handle my bees almost entirely without a veil, and mittens I never use." Small comfort this to most lady bee-keepers.

FLAT COVERS FOR BEE HIVES.

W. H. RITTER.

It's the cover that makes a good hive. To be sure it's the roof that makes a good house good to live in, for if it leaks every time it rains, it's no good as a residence, it matters not how fine it may be furnished inside and out. A simple flat cover on a bee hive has many disadvantages and few advantages. About the only advantage in the flat cover is cheapness and lightness in handeling. The disadvantages are many; it is always blowing off. Every zepher that comes along flops it off unless you put a 20 lb. rock on every one and that looks bad and takes extra work, and that's bad. And again when it is very hot in July or August, your cover is dangerous without an extra shade board. If at any time in the day the sun can get onto that flat cover for an hour or so, it will be likely to burn things up, or down, but the greatest disadvantage is in wintering. Bees winter bad in any kind of hive that has nothing but a single half inch top. Heat from the bees never goes down but always up, as everybody knows. That shows the necessity of always having the top as near air-tight as possible. They get all the ventilation necessary from the entraece at the bottom full width of hive. I used to fix my bees for winter first, by seeing that they had plenty of bees and plenty of honey, next I put a one-half inch stick, 12 to 15 inches long, crosswise on the top of brood frames, then spread over that a good strong cover. On top of this I inverted a section case which I packed full of dry leaves, and they always wintered well. My hives have a telescope cover with one and a half-inch between the cover top and the brood frames. Leaves being some bother to manipulate I fell onto an easier plan. I leave off the section case and the dry leaves, fixing cross stick as described above and placing over this a good oil cloth, oil side up, then over this four or five thickness of good strong paper that has no holes in it; then I jam the cover down tightly by getting on to it with my weight. The cover goes down over the outside of the hive like a bucket lid that keeps the bees very snug. There is the inch and a half air space between the paper and cover top which is a bad conductor of heat. I have a few dove tail hives with flat covers and in order to handle them I made a two-inch high frame, size of the hive body, and set this on the papers and cloth, cover them on top of this two-inch frame the flat cover with the 20 lb. rock to hold it in place. This is the only way I can ever winter bees with a single flat cover. Bees have done well here this year, gave us a good crop of clover and catnip honey and are in good shape to winter well.

Springfield Mo.

MODERN QUEEN REARING.

BY E. L. PRATT.

Queen bee-raising has become an important industry in itself in America. There are now a number of expert men who devote their entire time and give their best thoughs to this important branch of apiculture—they are termed Queen Specialists; an entirely different type of bee-keeper from those who turn their attention to wax and honey production.

The commercial queen raiser is generally an enthusiastic person who pursues apiculture on purely scientific and business principals; he studies, thinks, experiments, and is quick to adapt short-cut methods, for the season in which good, long-lived, queens can be produced, extends over but few months of the year and unless marketable queens in plenty are on hand early, large orders are lost.

Marked achievements in queen rearing methods and devices have been made in America the past few years. In cell-starting it was thought necessary to de-queen a strong colony, and to afterwards cut from the combs what queen cells may have been started in their effort to supply for themselves another queen mother. This was of course slow, ruinous to the combs, and demoralizing to the colony. In fertilization of the virgin queens that hatched from these cut cells there was even greater life in bee life, time, and material labor.

The professional queen rearer is forever casting about for methods to lighten his work and cheapen his product—thus the advent of so-called "Artificial Queen Rearing" in which the foundation stones were laid by the veteran specialists, Alley and Doolittle.

Not content, however, with the original plan of these old masters in art, several modifications have of late been brought forward by younger men in the profession, until now it is simply a question of how to best harness the egg for quickest and best results, and how to dispose of the queen cell obtained up to the time they are due to hatch, and thereafter.

In the fertilization of the virgins, marked improvments have been made. Bees that were once used to fertilize one queen are now divided into fifty parts by use of small boxes. If each box is then given a young queen it is found that she will fly as naturally from it as from the large hive, thus reducing the expense quite materially and rendering marketable fifty queens in the time of one.

The "Swarthmore" method of queen rearing is perhaps the most extensively used plan because of its great saving in time, excitement and material. It is adapted to all makes of hives, capable of much modification to meet individual desires, and is in every way desirable to both the Specialist and to those who wish to rear but a few queens for their own use.

The Swartmore plan in brief is as follows: A few young bees are practically "borrowed" from the strong colony and confined in a screen covered box for a few hours in order that they may become aware of their queenless condition. In their confinement away from the main colony, they mourn their separation from their mother queen and brood to such an extent that a surplus of chyle, which would have otherwise been fed to the larvae of the main hive, is secreted.

During a certain critical hour of their mourning, larvae, in artificial compressed wax cups, on little blocks of wood, the several holes at the top of the screen-covered box which larvae at once accepted by the queenless bees and are fed as naturally as though given in combs from the hive. These bees being without a queen, however, feed the larvae more rapidly and nourish

them with more care than usual, thus the life of the grubs given is changed from the state of "ordinary workers" to that of "queen." Therefore queen cells are constructed about each one and an unusually large number of royal subjects in embryo, conveniently attached to removable wooden spools, is the result.

So few bees, however, cannot maintain this liberal feeding of royal food very long, therefore the cells must be divided, after a few hours, among several strong colonies, in normal condition, for comeletion. For this a special cage is used, having perforated zinc, en either side which excludes the mother queens of the several hives in which they may be placed. The nursing worker bees however, being smaller in the thorax, readily enter the perforations and carry on the work of queen cell construction, building upon the cups that were started by the confiner bees during the preceding night.

Directly they are capped, these queen cells are again drawn like corks, and are placed in cages having division tins between each cell space and wire on either side in place of zinc for incubation, in which cage the several queens hatch in due time, each to find herself in a separate compartment, unable to engage any of her sisters in royal combat. Food sufficent to last several days is placed in each compartment, but the bees of the main hive will feed the confined princesses at certain seasons through the meshes of the wire netting.

By a special device the bees which have been confined in the screen covered boxes over night, are automatically divided among the several small mating-boxes, containing two combs each, after which each box is given a young queen; then the next day all are set out in the open field and in due time the virgins will fly in the open air to meet the drones or the male bees, returning after copulation, each to her little colony, never to fly again for the same purpose, they being fertile for life.

In a few days the mated queens will begin to lay at which time each is placed in a mailing cage and forthwith posted to the customer, for or near.

Food sufficient to carry a queen and her train of worker attendants to any part of the world is furnished inside each cage. When received by the customer, he introduces the queen to a queenless colony he may have, or some old inferior queen is killed and the new one substituted. A new colony is often formed for the reception of the queen received by mail.—Pacific State Bee Journal.

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.

GREETING.

With this issue the Progressive completes another year of its existence. Because of the delay in the shipment of blank paper the Progressive has once or twice during the year made its appearance late in the month. This issue is necessarily late in going to press, but we promise for 1904 that we will use our best effort to print the paper on time.

To all our patrons we wish a joyous Christmas and a merry and prosperous New Year. May your burdens be light and may this be the most successful year for apiculturalists in the history of the industry.

'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." —Bee Keepers' Review. Surely, to every one of experience, this should seem so excessively obvious as to need no utterance. What is needed is some recipe, or at least suggestion, for keeping on hand that enthusiasm warranted to last that we all ought to have. But hold on; come to think, there are some —yes, many—who deliberately discourage and reject enthusiasm as something of a lower order than machine-like endurance, and being too narrow-minded to cultivate both count it evidence of superiority to choose one and utterly reject the other. Yes, we have to acknowledge that even platitude has its uses. Those people who worship routine are more susceptible to platitudes than to demonstration. They appreciate the "Thus saith the Lord" kind of mental appeal better than "Come, let us reason together." But, for mercy's sake, don't let's call it inspiration. Nothing can make pressure from without equal to impulse from within.

THE RELATION OF ENTHUSIASM AND ENDURANCE is the most difficult problem, not only of our pursuit and others, but of life itself. He who has solved it has achieved his life's happiness. He who seeks to live by cultivating endurance at the expense of enthusiasm is slowly but surely undermining the very foundations of his endurance, just as surely as he who cultivates enthusiasm alone at the expense of endurance, will end by failing in enthusiasm. The latter fault is easily seen, and often held up to ridicule; but the former is no less pernicious, though not so apparent. Because it is not so evident as a fault, is why our popular platitudinous writers so often uphold it as a virtue. They wouldn't be popular if they didn't. This, Somnambulist, if you want to know, is the chief reason why their preachments act as a red rag upon the vision of yours truly. Yes, and you too—about every time you get sententious, out comes some implication that frosty-fire endurance is somehow higher and finer than ethereal-fire aspiration. It is the old story of the crime of the destruction of self being esteemed higher than the virtue of the harmonious development of self—being successful and being good

by creating failures and sins, then bludgeoning them, instead of making them impossible by living the whole life. The trouble with the creating and bludgeoning method is that some of the false conditions thus created elude the bludgeon, and come back to plague their creator; as the writings of Mr. A. I. Root, for example, only too plainly show. I wonder if those writers really never see that aspiration (meaning the enthusiasm of the whole self and soul) necessarily and inevitably brings along with it more frosty-fire endurance in a week than the Frost-Fire worship alone does in a year. They can't help but see it, surely; but probably they repress it as a prompting of Satan. But if these folks want something to bludgeon, why can't they see that the repression of prejudices, required by the proper apportionment of all the powers, is itself the highest and most difficult task possible? After all, this bludgeoning of small matters indicates a cowardice before the greatest.

WHAT IS THE RECIPE for retaining enthusiasm along with endurance? Every one knows what it is for enthusiasm to die out. But why does it? Why should one be all alive one year about everything pertaining to prevention of swarming, and the next year concerned with it only as it directly affects his work? Let's go back a little. Why after being in youth keenly alive to the intricacies of base ball or chess, should one after a few years be quite dead to them? Was it not because you gradually came to realize that the inner essence of base ball didn't touch the springs of life quite so deeply as something else? For the time being it did, because one thing that life does require is the putting forth of power in the muscles and nerves. But other kinds of power need exercise too. Does not the solution, then, of this question lie in a never ceasing endeavor to connect one's work with the main currents of existence, as felt by each individual at each period in his life? No matter how worthy in the abstract one's work may be, just as soon as it is no longer directly connected with that which he most reverences, just so soon enthusiasm fades away and takes endurance along with it. The great mistakes of our platitudinous writers, then, lie first in assuming that endurance, which is a result or secondary principle, may be treated as an independent cause or first principle; second, that it therefore must be severed from the main personal interests, and placed above them; third, that the interests of life never change or expand beyond certain fixed points, such as the support of the family, the acceptance of cut-and-dried systems of government, customs, beliefs, etc. All these things occur in life, but they must be arrived at independently and spontaneously by each individual who would be spiritually alive to them. The obstacle of obstacles, the one that requires the biggest bludgeon, the source of failure and the death of enthusiasm, is that narrow-mindedness which practices methods and virtues simply because others say they lead to success, and are virtues. Hence a recipe for enthusiasm ought to be something like this: Keep your work counected as directly as possible with what YOU feel to be the main currents of existence, and be ready to expand it whenever your feeling of the main currents of life expands. Not much of the "Be diligent, be industrious, be perservering, be virtuous and you will be happy" kind of advice about that, hey? Nevertheless, more perserverance and virtue will follow its application than can be inspired by half a million platitudes. For perserverance can't develope power without the leverage of some kind of motives, the stronger the better; and as for vir-

tue, the "main currents of existence" is only another title for the Spirit of the Universe, the sum total of that which really is, in and out of the human race, the universal equivalent for that which ecclesiastical language calls God.

OUR KNOWLEDGE OF FORMALDEHYDE as a settler for the foul-brood germ is in a decidedly wiggly-waggly state just now. First, we don't know know just what to get, whether formalin or formaldehyde. Formalin is said to be merely a trade name, a device to make the customer pay several prices. I have learned that formaldehyde is handled by dealers in butchers' supplies, and is of various sorts, according to whether it is wanted for preserving sausage, or chicken, or potted meats, etc. That for Hamburger steak, for example, is colored red, so it will dye the meat at the same time. Whether there is any other difference than color I don't know. Now, will it do to get this trade formaldehyde for fumigating? Second, those who report failures don't say anything about whether they used an air-tight vessel to hold the diseased combs. It is a very difficult matter to make a receptacle perfectly air-tight. But this should be done, for the gas is very penetrating. It is said also that foul-broody matter in the form of dried scales resists the penetration of the gas. All these are surmises, entirely lacking proof, and the Hamilton County Bee-Keepers Association of Cincinnati has simply flown off the handle in declaring the method a failure. We want some chemist to actually take some of the dried matter, and subject it to various known strengths of the drug, and then try obtaining cultures of Bacillue Alvei with the results, as well as with some of the untreated scales; also to authoritatively tell bee-keepers what to get to produce the gas. We also want instructions for making perfectly air-tight vessels, and if it is necessary to get them made by skilled mechanics, we want to know, you know, because it is important. Opinions, even in the form of editorial foot-notes, are utterly worthless.

CONSERVATIVE CO-OPERATION is, quite ably presented by Mr. R. L. Taylor in the Review, with one exception. He still clings to the old fallacy that numbers count. They do, but it is the number of colonies represented that counts, not the number of hive-owners; and it is emphatically not necessary to get together those who own the majority of colonies, in order to secure the most important of the desirable reports. The CARLOAD, first, last, and all the time, is the unit of action. If a district produces ten carloads, and only enough co-operate to represent one car-load, that is enough to secure nine-tenths of the advantages of co-operation for those who co-operate. As for farmer bee-keepers, they should be left out of account entirely. It seems strange that Mr. Taylor should refer to their point of view at all. By the nature of the case, they are not business honey-producers, and have no more to do with co-operation for selling honey than so many chicken-fanciers.

COUNTING THE COST.

A Colorado bee-supply factory has started up, with every assurance of success; and there are some other little shops starting elsewhere, and we hereby offer to them the hands of fellowship. This is right and proper. The field of the United States is very broad, and so far the manufacturers are not complaining on account of want of trade. In all of our years of experience we have had all we could do; and we have wished and most severely at times that we did not have so much business. But the new concern that launches out into making supplies should not figure on the mere shop cost, but on a ten per-cent depreciation of machinery, a fair allowance for capital invested, and general expense. One who essays to make bee supplies, or anything else, in fact, for the public, will find, if he desires to make both ends meet, and make a little profit, that he must add at least 50 per cent to shop cost. By "shop cost" I mean material and labor. There have been scores of little factories started, but most of them have gone out of business, for the simple reason that they have not added to their item of cost what is usually termed "overhead expense"—an item that cannot be avoided. Perhaps this advice may seem gratuitous to some. Gratuitous or not, if they will heed it, it will make all the difference between success and failure.—Gleanings.

THE REV. IRL R. HICKS 1904 ALMANAC.

The Rev. Irl R. Hicks Almanac for 1904 is now ready. It will be mailed to any address for 30 cents. It is surprising how such an elegant, costly book can be sent prepaid so cheaply. No family or person is prepared to study the heavens, or the storms and weather in 1904, without this wonderful Hicks Almanac and Prof. Hicks splendid paper, Word and Works. Both are sent for only $1.00 a year. Word and Works is among the best American Magazines. Like the Hicks Almanac, it is too well known to need any further commendation. Few men have labored more faithfully for the public good or found a warmer place in the hearts of the people. Send orders to Word and Works Publishing Co., 2201 Locust St., St. Louis Mo.

My Wood Nymph.

By D. L. TRACY.

For more than an hour she sat meditating, until the hearth was stone cold and the candle burned low in the socket, when she arose slipped off her dress, extinguished the light and crept into bed.

The next day her father noticed her pale face and asked her again if she was ill.

"No, father, not ill, but disturbed in mind."

Connecting his daughters altered looks with the visit of Thomas Tupper, the shrewed old Judge had a suspicion that his daughter's trouble was more of the heart than the mind.

After a little pause Julia said:

"Father, do you love me enough to grant any request I might make of you?"

"Yes, child, anything that is honest in the sight of God and humanity."

"Anything, father?"

"Anything, Julia."

Nothing more was said on this subject for several weeks, at the end of which time, Julia reminded the father of his promise, and ask him to give her the mortgage which he held on the home of Mrs. Long. Thinking it would be as safe in his daughter's keeping as his own, he gave it to her, and thus the document which was of so much importance to Fannie Long, passed from the custody of the kind hearted Judge into that of the girl who had sworn to win her lover.

As Thomas Tupper walked up the path which led to his home the day after his visit to Judge Jones, a small figure, which was hid in the shade of some lilac bushes, watched him as he drew near.

Fannie Long had learned to love the young man who had spoken so kindly to her at their first meeting; who had offered to help them raise the money to save their home and who was so noble in all his actions.

He had informed them of his intended visit to Judge Jones and she was anxious to learn what impression the Judge's accomplished daughter had made upon him.

He was wondering why he did not see the form of the girl he loved so well watching for him, as was nearly always the case, when she spoke to him from the shelter of the lilac bush saying:

"Good evening, Tom."

He turned eagerly, taking the hands she held out to him, and said:

"Good evening, dear."

It was the first time he had called her dear, but the word had slipped out unaware, in the surprise of his sudden meeting with her. She blushed a rosy red, but he knew she was not displeased.

"Did you have a pleasant visit, Tom?"

"Very pleasant, Fannie, the Judge is a fine man."

"How do you like Miss Julia?"

"Very much. She has a beautiful voice and they are both so friendly and sociable."

"Indeed they are."

"I was surprised to find Miss Julia such an accomplished musician."

"Yes," said Fannie in a mournfu

tone, "she is fortunate in having a father who is able to educate her and make her accomplished, while such as I"—she hesitated a moment—"while such as I must be taken in the rough."

"Fannie, precious stones are just as precious in the rough state as they are when polished, and rough gems are often desired, for in that case the fortunate possessor can shape the gem to suit his taste."

"Tom, could anyone desire to take a rough gem from humanity's ranks, when he could find a polished gem, with costly settings around if?"

"Yes, Fannie, he could."

Fannie was very happy as she walked along beside the young school master. Her mother was at the door to greet them and make inquiries about the Judge and his daughter.

During the winter Tom and Fannie were busy fitting up an out-house with hives. They had found a number of bee trees and these, added to stock in hand, made quite an apiary.

Tom bought the lumber and other supplies necessary for making some modern improvements, with his own funds. He spent more than he intended on these things, and so about the end of March found his supply of cash getting low.

About this time he heard of an apiary which was for sale, and which he was very anxious to buy, but was without the means to do so. It could be bought for about fifty-dollars which was cheap for it.

After devising several plans for raising the money, his mind reverted to the offer of Judge Jones.

During the winter he had made quite a number of visits to the residence of the Judge, and Miss Long would often accompany him and many pleasant evenings had they spent there.

It had become an established custom for him to sing with Miss Julia. He had a fair tenor voice, and after once hearing him sing, she would not let him off, but insisted upon his singing with her. And often has the heart of Fannie Long been sad, when the two sweet voices were blended together and she had to sit back, a mere spectator, while the man she loved hung devotedly over the form of another girl and their voices rose in unison.

One evening when they were singing together the Judge said to her:

"Well, Fannie, they make a fine pair, do they not?"

"Yes, sir, they do."

"Tom is a bright young man and the girl who gets him for a husband may think herself lucky."

"You think so?"

"Yes, I do. Don't you?"

The music had stopped and the singers heard the last remark. When Fannie Long become aware that Tom and the girl who had usurped his attention all evening, were listening to their conversation, some evil genius prompted her to say in a flippiant manner:

"Oh, I don't know. You remember the old adage about the fish in the sea?"

"Yes, but I do not like adages."

"Sometimes they are very apropose."

"Are you talking of us, father?" said Julia.

"No, daughter, we were talking of Tom."

"And what of him?"

"Nothing of any moment, Julia."

Ere sinking into slumber that night, Julia Jones thought, "Oh, how I love Tom. He is more to me than all the world—my father, my home, my honor, yes my life."

While in her distant chamber Fannie Long was thinking of the same man. "Yes I love him, yet I do not desire his love if he could not be happy with me."

Thus both of these girls loved Thomas Tupper, each in here own way

and according to her own nature—one with a selfish love, the other with a most unselfish love."

A few days after this Tom called on Judge Jones to see about raising the fifty-dollars to buy the apiary which was for sale. He received a hearty welcome from father and daughter, and when he heard his request the Judge said:

"You wish to borrow fifty dollars, young man?"

"Yes, sir, if you will trust to my honesty, for I have only my word to give as security."

"That is enough, Tom. Do you remember what I said about being able to read faces?"

"Yes, sir, but you need not trust me as implicity as that for I will give you my note."

"I do not desire it," said the Judge.

"Would it not be better, father, to take the note," said Julia. "It would answer for a receipt and would help to keep your account books in order.'

"Perhaps after all it would be better," said the Judge.

And so the matter was settled, Tom giving his note to Judge Jones for the fifty dollars. He bought the apiary which was for sale, and this, added to his own, was the beginning of the first apiary of note in the west.

The Tupper apiary was the first one to use the two pound lath boxes; here was first practiced side, top and bottom storing, in a rude way, and in fact all of the modern improvements were used in this apiary.

The season of 1865 was drawing to a close and the time was near for taking the surplus stores and preparing the hives for winter.

All through the summer, Fannie Long had been a constant helper in the apiary with Thomas, yet there was a coldness in his manner to her, so she thought, and no endearing word fell from his lips, such as he used to indulge in. This caused her to feel very sad, and she wondered what she had done to deserve this coldness. The chance remark which she had made to Judge Jones had been heard by Tom and it had set him to thinking about their friendship, and he wondered if he had made a mistake in thinking she entertained a serious affection for him.

Might not the kindness she had shown him be shown to any young man who occupied his position toward her? Yes, he felt sure she regarded him as a friend only, while some one more fortunate possessed the love of her heart.

So though they worked together they drifted apart and while his visits to Julia Jones became more frequent, Fannie was sorrowing for a love that had never been declared.

The success of the apiary, with the modern improvments, had been so decided, that Tom felt sure that in another year they would make a grand success and begin to lay by the money to pay off the mortgage. His small capital was almost exhausted, for he had drawn lavishly upon it for needed supplies of lumber for the apiary, but he felt no uneasiness on this score, since he was re-appointed as teacher of the Baxter district and knew the funds would be forthcoming when they were needed.

Both Fannie Long and Julia Jones felt very much relieved when the school board decided to retain Thomas, as teacher, for they both dreaded to lose the pleasure of his companionship.

So the winter and spring drifted by quietly, while Tom's visit to the home of Judge Jones became more frequent. He loved to be in the company of the brusque old Judge and listen to the interesting stories which he told of his early life in the new west.

The society of Julia Jones possessed a peculiar facination for him, though

he had no thought of loving her. Yet there were many social qualities about her that he greatly admired.

While they were spending a social evening together the subject of happiness came up for discussion and Julia said:

"What is happiness, Mr. Tupper?"

"Happiness is different with different people. One thing would make one person happy, while something quite different would create the happiness of another."

"What would be happiness to you?"

"Happiness to me would mean someone to love me devotedly."

"Is that all."

"All? Is not that enough? That would make earth a heaven to me. My life has been filled with sorrow, Miss Julia. A sad eyed, though cheerful, mother was the guiding star of my life until she was taken from me by death and I was left alone."

"Left. perhaps, for a good purpose."

"I don't know what it can be."

"Perhaps to make some other life more happy."

"I think not."

"And why?"

"For the reason that the object of my affections cares not for me."

"How do you know—have you ever ask her?"

"Ask her? No."

"Then ask her."

"What, ask a woman if she loved me when she has only acted toward me as a friend would act?"

"How would you have her act?"

"I would have her show to me that she cared for me."

"Would it not lower her in your estsmation?"

"No."

"What if she were to place her arms around your neck and kiss your cheek, would you not think her unwomanly?"

"Not when I love her so. Julia."

This was the first time he had ever called her Julia. The next moment her arms were about his neck, as she said:

"Then, Thomas, know that one girl loves you for yourself."

Had a bombshell burst at his feet he could not have felt more surprised.

"You love me, Miss Jones—Julia?" he stammered.

"Yes," she answered.

"I have made a mistake, Julia."

"A mistake in what way?"

"I thought that your heart was occupied elsewhere, and had no idea that you looked upon me other than a friend."

"Yet I did, and I do. You have been dear to me since the first time you called upon us."

"Julia, your love is all mine?"

"Yes, Tom."

"And you would marry me?"

"Nothing could make me happier."

"Would you, the accomplished daughter of Judge Jones, be content to marry me, a poor school teacher?"

"Please stop, Tom. It matters not what station in life the object of a woman's love may occupy, if she truly loves, and Tom I love you?"

"And you would be my wife?"

"If you wish me."

"When?"

"When you wish me to, Tom."

He kissed the lips of Julia Jones, his promised wife, and heaved a sigh for his last love dream.

The Judge was very kind when Tom spoke to him on the subject. He said:

"So, young man, you wish to take my daughter away from me—you wish to marry her?"

"Yes sir," said Tom.

"It is a great treasure to ask of me. I would rather part with all I possess than her."

"Judge, I can well understand what a sacrifice you are making in giving up your only child to me. But owing

to my straightened financial condition I shall not claim her for some time."

"Tom, it is not that which worries me, it is that a husband either makes or mars a girl's happiness, consequently marriage is the most important event of her life"

"I shall try to be a good husband to her."

"I hope so," said the Judge. Then he turned to his daughter saying: "But my child what do you say, do you love him?"

"Father, I love him with my whole soul?"

"Then be happy together my children."

Tom kissed his betrothed good-night and took his way toward the little home where he had dwelt so happily for almost two years.

(Continued in next issue.)

NOTICE KANSAS BEE-KPRS.

There will be a meeting of the Kansas Bee-Keepers Assn. Dec. 30th. All members are requested to be present also all persons int rested in bees are cordially invited to attend.

The object of the meeting is to further the organization and talk over the situation generally.

O. A. KEENE, Sec.

Advertising Rate Card

OF THE

"Progressive Bee-Keeper," Higginsville, Mo.

7 agate lines	[½-inch],	one insertion				$ 50
14 "	"	[1 "],	"	"		90
28 "	"	[2 "],	"	"		1 70
42 "	"	[3 "],	"	"		2 50
56 "	"	[4 "],	"	"		3 30
70 "	"	[5 "],	"	"		3 90
84 "	"	[6 "],	"	"		4 70
98 "	"	[7 "]	one-half page, one insertion			5 40
196 agate lines	[14-inch].	one page, one insertion				10 50

TIME ADVERTISEMENT DISCOUNTS.

Three insertions	5 per cent
Six insertions	10 per cent
Nine insertions	15 per cent
Twelve insertions	20 per cent

☞ *No fake medicine or mining scheme, or advertisements of a questionable character allowable.

CLUBBING LIST.

We will send the Progressive Bee Keeper with

The Review	($1 00)	$1 30
Colman's Rural World	1 00	1 15
Journal of Agriculture	1 00	1 15
Kansas Farmer	1 00	1 10
Nebraska Farmer	1 00	1 10
Home and Farm	50	70

BEE BOOKS.

No bee-keeper can afford to be without a brary of bee books. A book costing from fifty cents to one dollar is worth many hundreds of dollars to one who would succeed. Every beginner should have a book suitable for beginners, (one that will point out the road), and those more advanced will need something more scientific as a reference book. We will here give the names of such books as we recommend, and will be pleased to furnish you sending them by mail at the following prices:

The Amateur Bee-Keeper, (a gem for beginners), by Prof. J. W. Rouse; price, 28c.

Advanced Bee Culture, by W. Z. Hutchinson; price, 50c.

Manual of the Apiary, by Prof. A. J. Cook; price, $1.25.

The A B C of Bee Culture, by A. I. Root; price, $1.25.

A Treatise on Foul Brood, by Dr. Howard; price, 25c.

Scientific Queen-Rearing, by G. M. Doolittle; price, $1.00.

Langstroth on the Honey Bee, revised by Dadant; price, $1.15.

LEAHY MFG. CO.,
Higginsville, Mo.