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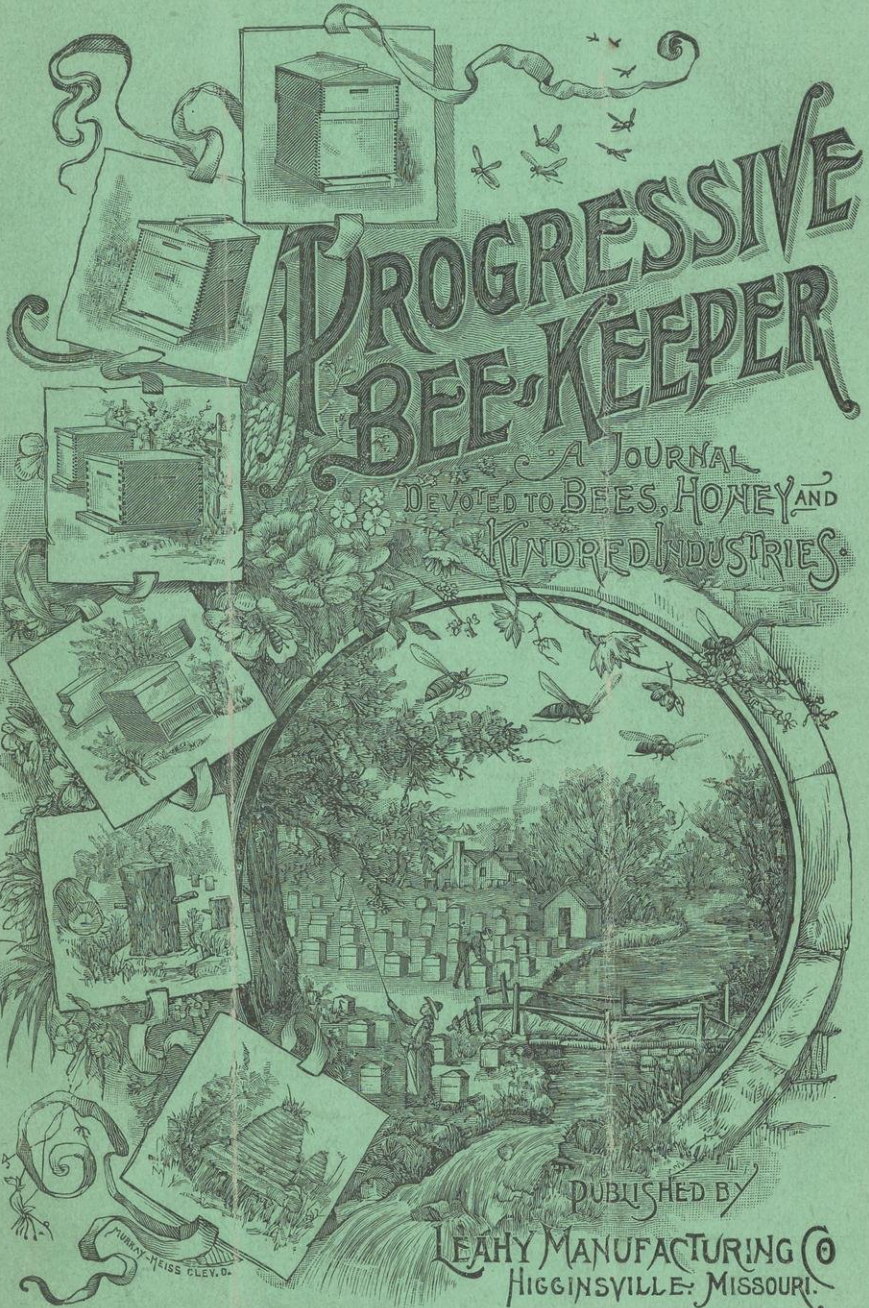
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JAN. 1901.



THE PROGRESSIVE
BEE-KEEPER
A JOURNAL
DEVOTED TO BEES, HONEY AND
KINDRED INDUSTRIES.

PUBLISHED BY

LEAHY MANUFACTURING CO
HIGGINSVILLE, MISSOURI.

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

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Mt. Pleasant, Mich., Aug. 7th, 1896.

Dear Sir—Smokers came O. K. They are the best I have ever seen; sell like hot cakes. Respectfully,

WM. BAMBU.

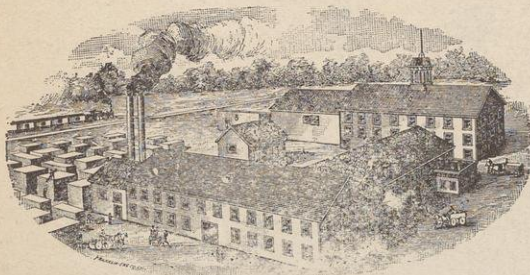
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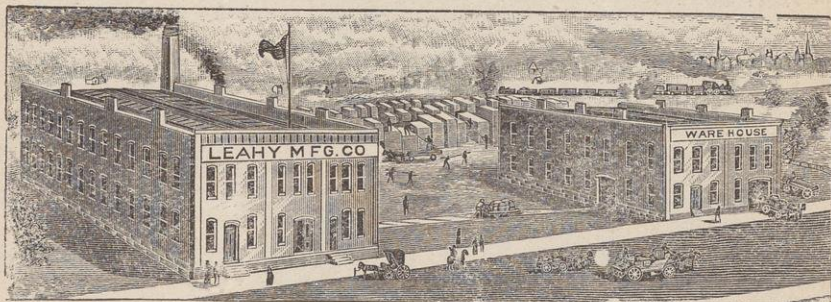
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LEAHY MFG. CO., Higginsville, Mo.
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The Progressive Bee-Keeper.

A Journal Devoted to Bees, Honey, and Kindred Industries

50 Cents a Year.

Published Monthly by Leahy Manufacturing Company.

Vol. XI.

HIGGINSVILLE, MO., JAN. 1901.

NO. 1

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Victoria.

She ruled her people, wisely, well,
Old England's greatest, queenliest queen,
Long ages hence shall Britons tell
Of her whose memory love keeps green.
And till the cliffs of Albion rear
No more their heights about the isle
She loved, all peoples will revere
Victoria's name, unknissed of gulle.
—Will Ward Mitchell.

Good Advice.

"Pray what is good for chappy cheeks?"
Wrote Molly to the editor,
And in due time, about two weeks,
She got the answer written for.
To other ears by chance it leaks.
A little birdie told perhaps;
Thus—"If you wish not chappy cheeks,
You must avoid the cheeky chaps."
—Will Ward Mitchell.

COMMENTS.

F. L. THOMPSON.

Mr. Culley's death is a calamity to the readers of the PROGRESSIVE. He was an able bee-keeper and writer, and, above all, a truth-seeker.

The article from his pen which appears in the November PROGRESSIVE, says at the close "With us bees usually start cells in any upper or lower story from which the queen is excluded for two days," referring to a plan to which I alluded, which plan is more fully detailed in the American Bee Journal, 1898, p. 294, column 1, top. I must humbly admit that I was taking too much for granted, and should not have done so. What I should have mentioned is to be found in the Western Bee-Keeper, 1899, p. 94, column 2, near the top: "In the other story, which has been made queenless, queen-cells in eight cases out of ten were not started, in his experience, so that it will not pay to look for them. (It may be that this result depends on the timeliness of the operation, and that if done too late in the season, more queen-cells would be found in the portion made queenless.) As it is, that saves cutting of cells, which is quite an item." Mr. Culley did not speak of the time of year. It must be remembered, tho, that here in Colorado (locality again) the great bulk of the swarms, and the most of the queen-cells, come af-

ter the flow has commenced, and that the operation referred to comes nine days before the flow, when there is a dearth.

As usual, when Meesrs. Aikin and Doolittle get to discoursing on what people ought to do, I can't agree with some things, and want to Amen others. If either one of them had his own way in the ordering of this fleeting show, I, for one, should be thoroughly miserable. "Why learn to handle bees and know nothing about poultry, fruit, gardening, general farming, mechanical work, literary, social and political affairs, etc?" serenely asks Mr. Aikin, p. 332. Yes; why not learn how to spear a walrus and handle a rapid-fire gun, open your eyes under water and climb a palm-tree, talk Tamil and write Irish, rope a steer and play the mouth-organ? "It seems to be a fact that specialists in the exclusive sense are almost exclusively a set of cranks." Yes, I have known such. I admit their existence. The eccentricities of the very few whom I have known, however, gave me the impression of being congenital—in other words, they were specialists because they were eccentric, not eccentric because they were specialists. It seems to me a waste of good white paper and black ink to return to the eighteenth-century-novel style of treating types as if they were concrete individuals. Just point out to me, Mr. Aikin, ONE case of a crank MADE cranky by specialty, or mention to the readers of the PROGRESSIVE the well-known name of any such person,—and then multiply him so as to make a set of him, numerous enough to have any sort of influence in considering specialty.

Mr. Aikin is not thinking clearly and sharply enough, as such a jumble as "poultry, fruit, gardening, general farming, mechanical work,

literary, social and political work" indicates. Certainly it is desirable to exercise all the faculties, but does it follow that I should know ANYTHING about poultry and general farming because I keep bees? Did Mr. Aikin ever stop to think that such an apparent diversity of occupations is the worst kind of specialty? It is as plain as the nose on your face when you once see it. All those occupations are mere varieties of ONE occupation—mechanical work; and when you give your WHOLE time to mechanical work, how can you expand in "literary, social and political" directions? And if you attempt to do two or three varieties of mechanical work at once, you will be OBLIGED to give your whole time to them, and let literary, social and political work go, except such a thin veneer of the same as I hope Mr. Aikin does not intend. Is mechanical work of such supreme importance that it has to be known in numerous branches, and thereby monopolizes the whole life? No, no; when a bee-keeper meets a fruit-grower socially, and can not keep up a conversation with him, it is not because they respectively know nothing of each other's occupations; it is because one or both knows nothing of the higher aspirations of man, expressed in literary, social or political activity; and no bee-keeper need be a whit ashamed of himself if THAT is the reason why his neighbor can't talk with him. Don't deceive yourself. Don't think you have escaped the influences of ignorance, narrowness and one-sidedness, because you can tend poultry and fruit as well as you can bees, when your acquaintance with literature ends with Rider Haggard, "The Duchess" and the daily paper, when your conception of science is that of a sort of theoretical mechanics,

when society does not mean the inspiration of the company of truth-seeking minds, but the titillation of repartee, and when your political authorities are fiery paper-backed pamphlets.

But hold on. In spite of this looseness of thought Mr. Aikin comes back to the fold after all. "Strive to know many things, but to excel in one or more lines." I shan't quarrel very seriously with that, though I should say that as far as mechanical things are concerned, ONE line of activity, not many, is ample. But when it comes to man's whole make-up, I believe I am more opposed to specialty than Mr. Aikin is. I don't think he is QUITE sound on the subject.

I have not the space to go on and take up Mr. Doolittle's comments, without leaving bee-matters out of this letter entirely, which I don't want to do. But as Mr. Doolittle says I hurl "assumption," "assertion" and "demagogue" at him, allow me to say—why, yes. The very next sentence is a pure assertion; and for that matter, the whole paragraph bristles with them, and assumptions too. And how shall we characterize such phrases as "the life and death of the republic," "the future happiness or misery of the world," in referring to mere political systems? Do systems make men? "Men still talk," wrote Dr. Ibsen in 1870, "of special revolutions in society and politics. But all such talk is trumpery. It is the human soul that must revolt." As long as scarcely one in fifty is concerned with idealism, with constant striving to make himself and others better than they are. but, instead, has just two conceptions of life—one lots of work with no particular aim, the other lots of sitting about in hammocks, reading novels, or of harrying the innocent inhabitants of

the woods and fields—why, one system is pretty nearly as good as another, and UNDER THOSE CONDITIONS the excessive denunciations of one and puffing of another, mere sensationalism and clap-trap. Then, too, while admitting the theoretical justice of direct legislation, and Henry George's theories, and the like, the fact remains that it is necessary to prove them practical and the times ripe for their reception. This Mr. Doolittle does not do; in short, he gives but one side only. There is none of the "Come, let us reason together" spirit in his political faith. There are lines of argument that we will never hear of through him; but they should be presented, even if of less force than the others, if we are to reach a judicial—and just—conclusion. Those land theories, for example, are generally discredited by political economists. Perhaps the latter are all wrong—well, show it.

That latest hobby of mine, the plan of preventing swarming by a board between the old hive and the new one, with a channel connecting the two, which I have before described, was criticised lately by a bee-keeper, who said it would have a tendency to substitute an inferior class of queens for those in the yard at the time; for in the first place the queen-cells in the old hive above would be built under unfavorable circumstances, and then, the queen hatching from one of those inferior cells, would be sure to supplant the old queen below in the new hive, because a young queen which enters a hive and is accepted invariably supersedes the old one. Admitting the objection, it doesn't seem to me a very serious one. If the cells must be cut, in order that no young queens hatch, there is a very great difference between cutting cells when the bees are few and when

they are boiling over everything. But I am not sure even that needs to be done. Would not there be bees enough to rear good cells, after all? But even if not, what a fine chance for requeening—and that would settle that question—with choice stock, with none but young bees in the upper hives.

In one of Mr. Culley's recent articles he seems to have me mixed up with another Thompson, or was misinformed by mistake. I did not use any of last year's make of Leahy's foundation, consequently can express no opinion of it. I used Leahy's '98 foundation, and expressed the opinion that it was nicer to handle, in cutting up and fastening in sections, than another make. As to comparative merits in being thinned by the bees, or absence of sagging, I know nothing of any foundation by test. I suppose few bee-keepers do.

Just before one of the sessions of the late Colorado convention—I mention this because it will not appear in the reports—there was some conversation on non-swarmer management, and Mr. Gill said that when by careful management along those lines which have a TENDENCY to keep down and anticipate swarming, the actual swarming was reduced to 60 per cent increase, that that was just about the right proportion to keep up the number in the apiary, and therefore a special non-swarmer management was unnecessary. He also mentioned the fact that he had attended to five apiaries the past season. "How's that?" I said "if the bees swarmed 60 per cent.?" "Oh," he said, "there are five of us, and we each had an apiary to watch." "Then you did not do all your work yourself" said I. I forget whether he said anything in reply; but it is evident that when Mr. Gill refers to a

bee-keeper, he means 1 man, 1 woman, and 3 children. I solemnly protest against such misleading assumptions. This is even worse than Mr. Hutchinson's defense of the four-piece section against the just charge that it takes much longer to fold, he saying that that doesn't matter, as they can be put up by cheap labor in the long winter evenings,—by the children. Now, gentlemen, if you use arguments, let them be universal, or make the necessary qualifications.

Denver, Colo.

A Changing World.

How the world is changing—all the faces that
we knew
In the blue-eyed spring of childhood—where
can they have vanished to?
But a passing space we left them—ere the
heralds of the dawn
Mounted half the hills of morning, we re-
turned to find them gone.

How the world is changing—where the dewy
violets
Of the olden years were gleaming, is the rue
of vain regrets;
And a little hand that led us through the old
remembered way,
Seems to beckon us from heaven, where an
angel waits today.

How the world is changing—with the passing
of the years,
Certes life's diviner rainbow is the smile of
love through tears.
And the pansies of remembrance in the cham-
bers of the heart,
Fill the soul with purest incense from an altar
set apart.

How the world is changing—as the seasons
wander by,
But the sun shines ever somewhere, gray or
blue the over-sky.
And the wrong we fancied victor yields itself
at last to right,
While the fairest morning follows oftentimes
the darkest night.

How the world is changing—it is best that it
should be,
The winter with its wealth of white, the spring
with bird and bee,
And nature waking from her sleep to crown
the summer queen,
Till autumn, fair usurper, comes to change
again the scene.

How the world is changing—you and I are
changing, too,
But the roses are as red today, the heart of
love as true,
As in the days of used-to-be, where memory
loves to range,
O, friends of now you ne'er were known had it
not been for change.

—Will Ward Mitchell.

Shiny Bees.

One of our friends in Talmage, Neb., writes us as follows:

"Every season I am bothered with little black shiny robber bees. Could you sell me perhaps a bee-trap or bee-catcher for these? Hoping you will oblige, I am

A. D. BUSACKER.

Friend Busacker:—In reply to your card of the 26th will say that the little glossy or shiny bees are produced from two causes; first, being chilled in the cells just before hatching in the spring; second, getting overheated in the cells in the hot part of the summer. The only remedy that I know of is to kill them, as they cannot or will not gather honey, and will always be trying to rob other bees. We have never heard of a trap to catch them. A shingle with a few holes bored through it, to let the air pass through, would perhaps be the best way to kill them.

The Amateur Bee-Keeper



SEND 25 cents, and get a copy of the **Amateur Bee-Keeper**, a book especially for beginners, by Prof. J. W. Rouse. By mail, 28c.

Address, **LEAHY MFG. CO.,**
Higginsville, - - Missouri

Good Things in the
Bee-Keeping Press.
Somnambulist . . .



The array this month, if it does not convince you I am a clipper, will at least show how hopelessly lost I was when I thought to crowd even a passing recognition of the leading bee journals into one month's space. Braced up by a fresh start, will begin with the American Bee Journal, and wind up with, not a review, but the Bee-Keepers' Review. Permit me to present you with an immense bouquet of sweet clover (its memory "haunts me still") selection plucked from the

Proceedings of the 31st Convention of National Bee-Keepers, held at Chicago last August, and reported in the American Bee Journal:

Rev. E. T. Abbott—Sweet clover is my pet and I am in favor of having my pets preserved, and I don't think there is any danger or occasion to be alarmed about sweet clover being declared a nuisance. I live right close to Iowa. We Missourians are given credit for asking to be shown everything and not knowing much. I have unbounded faith and confidence in the intelligence of the people who till the soil in Iowa. I don't think there is cussedness enough in Iowa in the 19th century, verging on the 20th, to call sweet clover a nuisance, or to declare it a weed. If I wanted to guard against it, the way I would do it would be to call on the editors of some of the papers and ask them to say something about it, and thereby teach the people what sweet clover is, and some of its merits. The coming industry of the world—Belgian hares—will eat it right along without being taught. By the way, let me tell you how to cure sweet clover for hay, although this is not a farmer's meeting. There isn't over one farmer in three hundred that knows how to cure sweet clover for hay. He thinks the sun ought to cure it, but it burns it, it doesn't cure it. Let it cure itself. The leaves have pores, and the stems have not. There is no chance for moisture to evaporate out of the stems, but the leaves act like pumps, and they can pump the moisture out of the stems. If you want to cure sweet clover, and do it well so that it will be of value as hay, do not cut it down and let the hot sun dry it; the hot sun immediately destroys the action of the pumps. Don't do that, but put it up in the shade so the winds can blow through it. The leaves will keep green, and those leaves will go to work and pump the moisture out of the stems; and as soon as they get their work done the stems will be dry, and you will have hay that anything will eat, and that is the only way to make hay of any kind. Nine-tenths of the hay that comes into the markets in large cities is not fit for anything to eat. Any man ought to be ashamed to bring lots of it to market, yet the farmers are making that kind of hay all the time. You can't cure sweet clover any other way than by letting the leaves pump the moisture out of the stems; they are so large that it won't evaporate. The only thing necessary with sweet clover is to talk about it. I am writing about it all the time in the Modern Farmer—writing about it as though I thought nobody on earth knew anything about it. The truth of the matter is, there are only a few people who do know about it. Kansans just found out

the other day from the Kansas Farmer, that sweet clover hay is of some use; and the funny thing was, that men who are connected with the Kansas Farmer, who are interested in fine horses, got to discussing the matter with each other, and one of them said (and by the way, I had been talking this very same way about sweet clover for six years, but it didn't do any good—didn't make any impression on them). Well, he said, "I cut some of that sweet clover the other day and gave it to my horse, and he ate it up. He is a kind of a fool horse, doesn't seem to have much sense, and he ate it right up." The other fellow replied, "My horse won't eat it." The first man then said, "When you go home, cut some of the sweet clover and cure it thoroughly and give it to your horse, and see if he won't eat it." He did so, and what was the result. The next time he called on me he said, "I tried my horse on that. He is a horse that will eat almost everything, and, strange to say, he ate that entirely up and whinnied for more." They have just discovered over in Kansas that sweet clover is fit for something besides bees. It is the best thing for dairy cows outside of alfalfa; there is nothing grown to-day that will make so much milk for the amount of energy exerted as sweet clover; the man who lets a cow starve while there is a pasture of sweet clover makes a mistake. I know plenty of people who let their cows eat ragweed where they eat two inches into the dirt, and haven't brains enough to cut sweet clover for them. I think we will get them taught after awhile that sweet clover has some little value. It is a very nice thing to tell us WHAT we ought to do; it is a great deal nicer to tell us HOW to do it. We have acres and acres in my locality, and we have the shade to cure it.

Dr. Mason—I wish Mr. Abbott would tell us how to make shade.

Mr. Abbott—If Dr. Mason doesn't know that the Almighty makes the shade more than half the year he would better find it out.

Dr. Mason—He hasn't done it in our locality this summer. We have had more sweet clover this year than ever before; we do cure sweet clover in our locality without shade. We have cured it right in the sun this summer; it makes first-class hay. One of our large farmers, who never knew it was good for anything until this summer, found it out because he couldn't help himself; he had ten acres of grass growing for the first season for many years in a field just over the fence from my apiary; he raised oats there last season, and the sweet clover came up, but I didn't sow it, and it was great big, nice bunchy stuff, and his hired help said to him, "What are you going to do with this stuff?" He replied, "Rake it all up together." From the first load he took home he fed some to the horses,

and they cleaned up the sweet clover before they ate the hay. He has a pasture of about 30 acres by the side of this meadow, with lots of sweet clover, but the horses and cattle keep it eaten close to the ground. A lady had the effrontery last week to tell me there would nothing on earth eat sweet clover. I took her over to the pasture fence, and I said, "Show me any sweet clover unless it is somewhere the cattle and horses can't get at it."

A Member—I would like to ask Mr. Abbott at what stage he cuts sweet clover for hay?

Mr. Abbott—As it is coming into bloom Without any joking about shade, you know the ordinary way is to spread hay out. The way to put it up is to put it in cocks immediately; as it is cocked, lay it up so the winds will blow through it. They say down our way I am a city farmer; but there is a difference between cocking hay and spreading it out thin.

Mr. Kretchmer—In the city a pasture for cows is more valuable than anything else. I sowed some sweet clover, alfalfa and red clover, expecting the red clover would be eaten by the cows. The cows kept the sweet clover down to the ground, the alfalfa was next to the sweet clover, and the red clover was the only one that went to bloom. The sweet clover was eaten so much it never got over two inches high.

M. M. Baldrige—I wish to say in regard to curing sweet clover for hay, that there is another plan they practice in Mississippi extensively. Sweet clover there is a farm crop, the same as oats or wheat, and is grown by people who do not keep any bees at all, from 50 to 100 acres on a farm. I have seen 75 acres on a single farm, and the way they cure sweet clover hay is this: They cut it, say today, and let it wilt until to-morrow, then put it into an airtight barn and let it cure itself; let no air to it whatever; it will cure itself, and in the winter they have the finest hay for cows and milk that can be produced. The idea that it is classed as a noxious weed in the North is considered nonsensical by those farmers of the South.

An equally extended discussion of the most desirable honey package was indulged in, and as it is ever a living issue to the practical bee-keeper the principal points are offered for your thoughtful consideration. Mr Bishop said:

"The first requisite in selling extracted honey is to have the customer understand that we are presenting to him a pure article; that has more to do with it than any package. The first requisite in the disposition of extracted honey is to establish the fact to our

customer that we are showing him, and seek to SELL him, a PURE ARTICLE. That, I trust, you will all appreciate. The next thing regards the package in which it is contained. My experience has been that a wooden package is the best, largely. It came from the fact that in 60-pound cans, early in the history of extracted honey, there was adulterated honey sold for California honey; or some other far-famed product; hence, there is a prejudice, and prejudice, you know, is a very bad thing to remove from the minds of men. It is a hard matter to disarm prejudice, and they don't forget the fault readily; hence, there is a prejudice in my experience against tin packages holding 60 pounds. However, we have had some of the finest honey in those cans of any honey that was ever brought into market; yet I believe a five-gallon, and ten-gallon, and even 100-pound, or 150 to 200, or 300-pound, package of wood, properly made so it will not leak, is a very desirable package. It is easily handled—you can roll it along the floor, trundle it on your truck, and there is no danger of injuring the package; you can open it if you desire by pulling the bung, and exhibit what it contains. The case which holds cans usually has two; it is heavy, and it is a bigger package. It is not so easily handled; you can't roll it; you have to truck it; if it falls over there is danger of bursting the tin; after a while the tin becomes rusty if the can is kept long enough, or perhaps will spring a leak, and sometimes they break of themselves and honey runs away. I believe there is more loss in the can than in the wood package. I would recommend wood packages, either kegs or quarter barrels, half barrels and casks, for honey. In handling amber honey, which is sold largely to manufacturers, barrels are very good, and the quantity does not cut so much of a figure with them as it does with the retail trade; if we sell to the retail grocer, or those who want small quantities of honey, they usually like to buy 50, 100, 150, or 200 pounds at a time.

Then Mr. Barnett expressed his views in this wise:

"The question is one that we have thrashed over considerably, and I have noticed in a few years, according to my friend, Dr. Mason, that I have been abandoned, and getting behind the light-house; that it has been a live question in quite a number of gatherings of bee-keepers, and it is certainly an important thing that you get your goods in packages that will take them to the market safely, and where they will not meet with objections that will discount the price. I think that localities have something to do with the kind of package to use. I think that for lower California, the mountainous regions where the honey does not granulate so, some of it not

perhaps in years, and the nature of the country, where a package that a man can lift, is desirable, and where the hoops won't get loose because of a long, long dry time, then the 5-gallon or 60-pound tin can, two in a case, is perhaps the most practical one for that purpose that I know of. There are other sections of the country where the honey will granulate in anywhere from 10 to 90 days after its extraction. In some sections of the country they can manufacture their own packages, and manufacture a most excellent package out of wood. I have known of losses after the goods came into my hands, because the honey was not properly ripened, or in a condition to send to market when the producer sent it. During hot weather it fermented, and the end would blow out of a barrel, for something has to give way; but that holds equally true with the tin can. If the honey isn't ripe when you put it in the tin can, the tin can won't hold it. It will burst the can and burst the case around the can. It will get out under the right conditions. Now, I am of the opinion that hard and fast lines in any cause are not desirable. I do not think that every man, even if he is a member of the same organization of fraternity, ought to wear exactly the same shaped hat or coat, but that there is a necessity for a variety of packages. Furthermore, a barrel, or a wooden package, has been for many years used to market honey in and people are accustomed to getting it in that shape. I know a great many who argue wholly for the tin can, and say it is a more convenient package. You can take a tin can and put it on a steam heater, or anything of that kind, after it has become candied, and so bring the honey to a liquified state, and it gives you very little bother; and that it is a more convenient package for retail purposes, and that sort of thing.

I quite agree with them, and for that purpose, and for that trade, a tin can is necessary, but you may not all know it, and I don't know that I know it myself, but one-half, certainly, in my opinion, of the honey that is produced in the United States is bought by parties who buy large quantities at a time, and are in a position to handle it in large packages. They have the facilities for getting the honey all out of a barrel just as clean as they will out of a tin can. I think the package will "drink" anywhere from three to five pounds of honey, and it will keep that weight, so that the gross weight won't have lost anything. If it is kept in a damp place, the gross weight will have gained, there will have been a certain amount of moisture that goes from the outside into these barrels, but I haven't had any trouble with them of any kind, aside from that which I have already stated, of finding it, or rather having had them filled with unripe honey;

but we have had cans burst that were new cans in new cases, because the honey expanded in the cans. I think it is well to use the package that you are accustomed to using, providing you find by your experience you do not have to sell it at a discount.

Mr. Burnett—As to honey being ripened before it is put on the market is the most serious question in the whole extracted-honey business; you don't know, to save two pounds of honey, how much you injure the consumption of honey by putting on the market unripe honey; there isn't anything that has limited my sales to the extent of unripe extracted honey.

A member thus comments on this:

I would like to emphasize what Mr. Burnett has said, that the greatest enemy to extracted-honey is poor, thin stuff; let it get ripe, and then you have something that the adulterators can not imitate.

Mr. Weber—Last year we had a shipment from Mississippi—a lot of barrels that were old molasses barrels; the head was out of one, and not a drop of honey left in. We were lucky enough to secure pay for the honey from the railroad company. I would not advise molasses barrels; in general they are very poor; cedar barrels are better.

To the foregoing I add extractions from a later number of the journal:

CANS OR BARRELS FOR HONEY.

Editor Root is a square man in general, and a square man in particular. He says:

"Every now and then we are receiving barrels of honey almost empty. Our readers already know of our experience, of the honey running out, and onto the bottom of the cars, and how the robber-bees made things lively for all the railroad men. Our honey-buyer says square cans should always be used for white honey. If we get it in barrels we have to go to the expense of putting it into cans, because our trade calls for it in that way. Low grades of honey are generally put up in barrels because the bulk of it is used for manufacturing purposes. But the best grades should be put into cans, if for no other reason than that the honey can be sold in large or small lots. Many customers will take one or two cans when they would not take a whole barrel."

Mr. York thus comments:

The square five-gallon pound can is THE package for holding extracted honey. But you want to be sure that you have a well-made can, for cans sometimes come apart at the seams or joints, and then they will leak worse than a barrel. Tin cans have a big advantage

in not soaking up any of the honey as do barrels. There is a big loss due to soakage, and both the producer and consumer of the honey seem to expect the dealer or middleman should stand that loss. To this we object. If the bee-keeper persists in using the barrels he is the one that should bear the loss from soakage.

MR. WALTER S. POWDER, a large city honey-dealer, in an article in *Gleanings in Bee-Culture*, says: "I hope the day of putting honey in barrels is past." Blessed hope. Then when bee-keepers will use only the best-made tin cans, and not poorly-made ones, everybody will be happy. The 60-pound tin can is a winner for holding and shipping extracted honey.

The "afterthought" as conducted by E. E. Hasty plainly indicates his name to be a misnomer; concentrated thought and expression are his "to command," for example:

"Bees do nothing invariably."

"It doesn't pay to save steps by knocking days off the end of one's life."

"Ordinary finished honey has no pollen-grains in it."

Wish the last could be fired into some of the would-be customers; is honey slightly darker than usual? They have but one reason to assign, and they are actively ready with it, "Too much bee-bread in it."

To preach anything like the above, would be like unto "casting pearls before swine." It does seem that this, and any other prejudice regarding bees or honey, once having gained a foothold, are about as fixed as the laws of the medes and Persians.

How he crucifies our conceit in the following:

"To go through a lot of wise fuss and fixing, and to plume ourselves with the idea that we have accomplished something, is an uncommendable sort of bliss unless we have accomplished something. Page 648.

And a little farther along gently reminds us of the fax-in-the-kase.

BREEZY HILLS NOT ALWAYS BREEZY.

And so Mr. Roebing thinks that on the top of a breezy hill hives have less need of shade. Probably that's so to some extent. But even

breezy hills do not always have breeze. The most injurious of "tan-toasters" come with a dead calm, do they not? Page 648.

OATS CHAFF FOR BEE-HIVE CHICKENS.

Stick a good-sized pin right here. Oats chaff is used to fill the cushions with which J. G. Norton hatches bee-hive chickens. Oats chaff and wheat chaff are practically very different substances. Where ventilation through the cushion is desired wheat chaff is much the better; but so long as perfectly dry (a condition rather hard to maintain) oats chaff is much the warmer. Page 637.

Again he sets us to thinking by such as:

FLIGHT OF BEES.

Mr. Doolittle's claim that bees work $4\frac{1}{2}$ miles away from choice would probably be met by a lot of practical men claiming that from CHOICE bees keep inside of a half mile. Without much assurance, I rather think that the truth lies between these two extremes, and that the reason that bees seem sometimes to prefer near-by locations is that they have not FOUND the more remote ones yet. The reason why a long flight is sometimes more profitable than a short one is, that it gives opportunity for both evaporation and ejection of water from the nectar. And several kinds of forage (when yielding at best) give the bees no compulsion to fly while loading up, each flower or cluster holding more than a load. Whitewood and yucca are notable instances of this; and probably basswood sometimes comes near it.

FLIES AND BUGS ON BASSWOOD.

Quite a problem when flies and bugs visit basswood and bees do not. Possibly the insects seen could get some provender by GNAWING at the nectar-glands, while bees do not come till there is nectar sufficient for pumping. Page 586.

FINE-GRAIN AND COARSE-GRAIN GRANULATION.

One of the valuable remarks in that valuable paper of Prof. Cook, page 566, is the surmise that fine-grain and coarse-grain in granulated honey mainly depends (as in other crystallization) on the rapidity of the process; the more quickly the thing is over with the finer the grain. I would add that the coarsest crystals of all seem to be at the bottom and sides of thin honey, and in unsealed cells where only part granulates. In both these situations the process can go on for weeks. Still, rapidity alone may not determine all.

MINIATURE TUMBLERS FOR HONEY SAMPLES.

Possibly C. P. Dadant may have been too fast in saying that we have no use for the miniature tumbler of honey holding a little over an ounce, and selling for three cents—

the tumbler itself costing only a cent. All our packages are to eat at HOME, while this seems to be an eat-on-the-spot sort of device, a novel rival for candy. May it not act as a missionary to increase the customers for honey? May it not (properly pushed) in some great crowds, carry off a big lot of honey without lessening ordinary sales in the least, but the contrary? And American glass men are capable of devising a tiny tumbler that would be valued as a toy when empty. Page 582.

Speaking from experience I answer yes to these pertinent questions. They are to the public much the same that the bait combs in the supers are to the bees. The latter start the bees to work, the former start the buyers, the only difference being in the character of the surplus formed or furnished.

Editor York and his able corps of assistants render our stay with the journal so very pleasant, that it is difficult to effect a departure, but "Old Time" is passing and the Review is beckoning so temptingly, we pass on, and while passing call attention to the fact that both of these publications enhanced their popularity by illustrations of a high order. The portraits on the back of the journal if mounted are fit to grace any position; one might form a bee-keepers album with them, while the pictures of homes and apiaries as represented on the polished, almost card board, paper of the Review are sufficiently charming as to mislead any but the most wary. By this expression I mean they appear too perfect to be real. In other words, so long as we remain on this mundane sphere, we can but expect imperfections.

Happy hit, that of giving, in connection with a man's advertisement, a picture of his apiary. How one revels, in imagination amid the beauties of his surroundings, beneath the tall shade trees, or beside the babbling brook, with, perchance, forest and mountain thrown in, each and all aiding the memory in the re-

tion of that particular advertisement.

While the good sense of Editor Hutchinson has led him to make a lifelong business of the practical, yet his artistical temperament shines throughout the Review with electrical brilliancy. Of late he has introduced two lady contributors, one of whom in the Oct. number booms extracted honey. True to her sex she scorns half-heartedness and dives into business in dead earnest. She is one of many honors of which the great state of Wisconsin boasts and addressed as Miss Ada L. Pickard. Here is her say:

"The apiarist with a large apiary, or perhaps several apiaries, can certainly operate his apiary with less expense and labor if he produces extracted honey. When prepared for extracting, there is comparatively little expense; about the only expense is that of the package for the honey. We have no sections, thin foundation, or shipping crates to buy; are free from the expense and worry of changing the shape the honey is to be stored; whether it shall be in tall, or in square sections; round or hexagonal. In producing extracted honey, one always knows in what style the honey is to appear. Then, I believe, there is more profit, (and less labor) in producing extracted honey than comb; because the bees will store more honey. The bees are not obliged to build comb in the honey flow or store their honey in, and use, as it is claimed by some, twenty-one pounds of honey to make one pound of wax, but can store that twenty-one lbs. in the extracting combs to be extracted. Of course, you will say the extracting combs had to be made; yes, but when once made they may be used for a lifetime, while the comb for producing comb honey has to be built every year. We are using comb in our apiaries that are at least twenty-five years old, and I do not see but what they are good for another twenty-five years. The idea of old combs discoloring the honey is more of a theory than anything else. In my opinion a colony can make two pounds of extracted honey to one of comb. When fancy comb sells for 15 to 16 cents, extracted sells for 8 to 9 cents (these are the prices at time of writing). A good average for an average colony in an average season is 100 pounds, and on the basis of two to one, all things being equal, the comb honey colony would produce only fifty pounds. The difference in quantity produced and the difference in prices would make it a net income of one

dollar more per colony if managed for extracted honey."

Wisconsin's atmosphere must be conducive to hustling; according to H. P. Miner's account he "alone has taken over a thousand pounds of honey from the hives, uncapped extracted, put into five gallon cans and returned the empty supers to the hives, working from 7 a. m. to 6:30 p. m." His method of handling supers while extracting is given:

"After the honey is all capped you are ready to extract, and not before; use supers with self-spacing frames $5\frac{1}{2}$ inches deep and have all frames wired; as you can't do rapid work, or wheel, shake, or handle supers filled with loose frames, without killing bees, or bruising the surface of the combs.

Get your wheel-barrow close behind the hive, have your smoker ready, and pry loose your cover, puff in smoke with the right hand, meanwhile flopping the back end of the super cover to force the smoke down faster; remove the super cover with the left, and set your smoker down and with the right hand pry the super loose from the back end. Pick up the super and give two or three sudden jerks over the hive, to shake most of the remaining bees from the frames, set it on the wheel-barrow, with the frames running lengthwise; never mind if you have left a few bees on the super; take the next super, or go to the next hive, repeat the operation until you have six or eight supers on your wheel-barrow; wheel it into the honey house and pile them cross-ways of each other, so as to let the bees out faster; they will fly to the windows and go out faster than two men could brush them from the combs. By the time you have 500, or 1000 lbs. off, your first supers will be clean of bees; it need not take more than one or two hours at most, to remove the supers to the honey house."

In an article on Cuba, its advantages and disadvantages as a location for bee-keepers, Mrs. G. E. Moe concludes in this manner:

"One has, also, to contend with pestiferous insects, such as ants, fleas, mosquitoes, etc., none of which were mere dreams. Domestic inconveniences are manifold, and few of the "Americans," as the ladies from the United States are called, care to reside in this country.

To conclude, if one can surmount the obstacles of living without schools, churches, or society, or the ordinary conveniences of life

if one can live in a tent or a palm cabin, and pay exorbitant prices for dry-goods, groceries, freight, etc., if you can keep bees free from death and disease through the summer, one will be rewarded by an abundant flow of beautiful white honey of a fine quality during the winter."

CANDALARIA, Cuba, Aug. 28, 1900.

In the same number we find this query with its accompanying answer:

ARE EXTREMELY OLD COMBS SUITABLE FOR BROOD COMBS?

Mr. W. T. Stephenson, of New Columbia, Ills., has been doing a little figuring, and, according to his figures, combs that have been in continuous use as brood-combs for 25 years have plastered upon the walls of their cells, 275 cocoons. He believes that so many layers of cocoons must materially decrease the size of the cells, and, consequently, the size of the bees. In proof of this view he says that he has in his apiary a hive in which the combs have been in constant use as brood-combs for 12 years, and that the small size of the cells is plainly perceptible; and that the bees of this colony are very small when compared with the bees of other colonies. He contends that if we wish for larger bees with longer tongues, we better look to the age of our brood-combs.

In speaking of the death of his father, the editor says:

"I could fill pages with reminiscences, but I must close by saying that father was a Christian, a kind husband and father, and an honest, upright man."

Simple but what more expressive.

As the "turning of a new leaf" season of the year has arrived, the following suggestions taken from the same source and furnished by Arthur C. Miller, of Providence, R. I., certainly are, to say the least, "seasonable":

WHAT HAS THE PAST SEASON PROFITED YOU?

Can you tell? Have you advanced in the science of the art? Is your apiary properly equipped and is it in the most convenient location? Will you be able to handle your bees next season more rapidly and with less labor?

Can you raise better queens? Have you a good and satisfactory way of introducing them? Can you produce better honey? Can you put it on the market in better condition? Can you sell it in a more profitable way? And

this does not mean get a higher price for it, but to get greater NET returns. Is your capital sufficient for the business you are trying to do?

Ask yourself these questions; look over your apiary and its equipment and study well how you may advance.

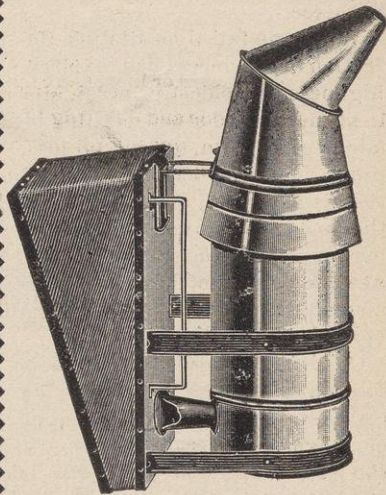
As a class, we do not have the tools we NEED for our trade. We make some cheap substitute do when the best is none too good. Often we are "penny wise and pound foolish." We do not have enough spare hives, extra sets of extracting combs, etc. Should feeding suddenly be necessary how many have suitable and sufficient feeders? The latter was this autumn brought forcibly to the notice of a certain apiarist of New England.

If you need new implements do not begrudge the money GOOD ones cost. Do not be afraid that you will help the supply dealer to get rich rapidly—he has no bonanza.

Take some of the coming winter evenings and think long, deep thoughts.

Naptown, Dreamland.

The "Higginsville" Smoker.



THE "HIGGINSVILLE SMOKER."

A Good Smoker for a Little Money.

THE HIGGINSVILLE SMOKER A DANDY.

"The 'Higginsville' Smoker is a Dandy with a big D." J. M. MOORE, Holden, Mo.

Price 75c; by mail, \$1. Address

LEAHY MFG. CO.,
Higginsville, Mo.

The Cliff-Dwellers:

by

J. M. Davis, Spring Hill, Tenn.

(This story began in the December issue).

IHE young princesses received unusual attention; the guard was strengthened, and every precaution taken to prevent accident to either of them. Their every want was anticipated, and everything done that could be to promote their happiness and fully equip them for filling

their royal office. In no way were they neglected, and as their development was jealously noted by solicitous and competent attendants, their perfection was proudly commented on, and as they rapidly neared maturity, they were more and more idolized by the entire populace.

When the full time allotted the perfection of a princess had expired, her highness, the eldest princess, appeared in all her splendor and dazzling beauty, fair, perfect form, queenly graces, and proud, majestic bearing. Monarch of the visible world, proudly she accepted the homage bestowed so heartily by her loving and admiring subjects. She was a fac-simile of her royal ancestor, a noted feature of this most distinguished of royal families.

One bright, beautiful afternoon, as the gentle breezes were rustling the leaves in the grove, and the happy hum of contentment pervaded the halls of the palace, as the princess was taking her afternoon walk, she discovered, to her great astonishment, a most beautiful and artistically constructed princess-castle, surrounded by a cordon of stalwart soldiers and scores of attendants. This greatly enraged her, and with much displeasure manifested in her lovely countenance, she stamped her dainty foot and sounded the shrill challenge to combat, in an excited man-

ner approaching the door. Soon there came from the castle an answer in somewhat muffled tones, well understood as notes of anger and defiance. Strange as it may appear, and so contrary to the common usages of many nations, the queens and princesses of these people carried at all times a deadly stiletto, poisoned as were the warrior's lances, but being peculiarly curved, and adapted to pierce an antagonistic queen in a vital place which is reached by a skillful maneuver of one of the combatant queens, or princesses. One thrust paralyzes the unfortunate combatant, and death ensues almost instantly.

According to their royal ideas, it is beneath their dignity to defend themselves, or combat with an inferior, and will suffer persecution, even martyrdom from inferiors, without offering to use their deadly stiletto; but the moment two of these royal personages meet, a duel to the death is precipitated; all of their queenly gentleness having vanished, they seem to have suddenly been transformed into veritable Amazons.

In this case the guards closed in their ranks around the castle, gently pushing the enraged princess from the door, which they held fast, notwithstanding the princess within was using every effort to sally forth to give battle to her royal sister. The elder princess being baffled in her attempt to get to the door, became more furious, and sought other avenues of approach, but was promptly met by the attendants and gently forced away. Actually quivering with rage she cried, "Treason! Treason!" This proved the opportune moment for the emigration advocates, who quickly laid their plans before the irate princess; she listened attentively, but hearing the defiant note of her rival, was again thrown into a furious passion, and sounding her shrill note of challenge, made another attempt to reach the castle, but was unable to do so.

As the shadows grew deeper and the scouts and foraging parties came in, the palace was crowded to overflowing and the princess found it difficult to pass the throngs. Her angry notes caused great excitement throughout the palace, insomuch that there was more or less of an uproar during the night. As the dawn appeared, dark clouds began to collect, there were occasional mutterings of thunder. The scouts felt uneasy. No home had been definitely settled upon, although so satisfactory a location had been found; the present outlook was not by any means encouraging for a long excursion. As the sun arose, a few daring scouts started down towards the valley, to renew the investigations of the previous day, and explore still further, if possible. A few loud peals of thunder and scattering drops of rain warned them of the approach of a storm, and sent them hurrying back at the top of their speed; scarcely were they safely sheltered within the palace, when a most terrific storm swept over the country, levelling many kings of the forest. Peal, after peal, of thunder, seeming to shake the Alps to their very foundation, accompanied by vivid flashes of lightning, rendered the storm more dreadful. The rain fell in torrents, swelling the little rivulets that ordinarily so musically coursed down the mountain sides, into mad rushing torrents, sweeping immense boulders before them, as though they were but pebbles. Even the brave warriors felt some concern for the safety of the palace, and there was a feeling of relief as the afternoon wore away, and the storm abated, but it was then too late to start on such a journey.

The crowded condition of the palace during the storm, impressed the people of the importance of an early move by the emigrants. Night, dark and gloomy, came on and there was much confusion caused by the disputing rivals for the throne, and a consequent commotion

among the ordinarily very orderly inhabitants. The morning sun was a welcome sight, as he arose, casting his genial rays over the mountain tops, and later over the hills and cliffs below. Thousands of the once contented inhabitants began early in the day to prepare as full a supply of provisions from the bountifully filled store-rooms of the palace as they could carry, and were anxious to make an early start for the distant valley, expecting to start a colony amid the land of flowers, and ere long build up a powerful monarchy.

About the middle of the morning, the weather being pleasant, the sun shining brightly, and all danger of storms being apparently passed, the time had come for action, whereupon a few shrill notes were sounded by the leaders, and passed from one to another along the halls, and a general move was made towards the door by thousands of the heavily laden emigrants. Soon it became a mad rush—everyone striving to be in the lead, seeming to fear being left behind, scurrying out at the door and circling around as if waiting and watching for something of unusual importance. Still they came pouring out, as if the very rocks had suddenly turned into living beings.

Soon quite a commotion could have been observed around the palace door, and immediately the beautiful princess glided out and joined the throng, occasionally sounding her call, now of a very happy character.

Gradually the hosts moved slowly down the jagged mountain side, keeping a direct course to the fertile valley below, being led by the scouts, some of whom kept well in advance of the moving columns. Soon they reached the open country where they could move with greater speed, and before the shades of the evening grew long, they were many miles away from their former happy home, where the rival princess, who had escaped from the castle during the excitement caused by

the departure of the emigrants, finding herself in undisputed possession of the kingdom, quickly assumed a quiet dignified demeanor, giving her attention to the duties of her high office.

The emigrants at last, after having traveled as far as the experienced scouts thought advisable, seeing that the heavily loaded emigrants were becoming tired, a cool shady grove was selected, and a choice place for a temporary camp being found, a halt was ordered, and after a short rest, a bountiful repast was served from the provisions brought from their old home. The princess was especially served with the choicest of the delicacies brought for her, and adapted to give her superior strength. After a short rest, the scouts left the camp going in all directions, seeking a suitable place to establish the new colony, but returned after a long and fruitless search, completely exhausted. The next morning a fine mist was falling, and continued throughout the day. The emigrants crowded closely under the dense foliage of the grove which kept them perfectly dry. The provisions brought from the marble palace, proved to be of great service as the weather was quite unfavorable for foraging.

After consulting the scouts, it was deemed advisable to move on down the valley, as soon as the weather would permit, in search of the desired haven of rest. The following day proving to be a propitious one, as early as possible preparations were made to resume their journey, and soon they were speeding over a vast expanse of beautiful landscapes.

Far down the valley could be seen the grim old fortress, Fenestrelles, where once the blood of giants flowed in rivulets, but this in no way affected our emigrants, as they were not seeking fields of conquest, nor were they of the giant species, hence not liable to be opposed by them. So without fear of molestation, the emigrants passed near

the great structure, winding slowly onward, until the shades of evening warned them that it was time to seek the protection of some friendly grove in which to pass the night.

A few miles further on, they found a lovely, fragrant, flower-bedecked grove, covering a broad plateau, which was at once appropriated by the weary emigrants, camp pitched, and after a refreshing repast, all sought the much needed rest.

It was decided to spend a short time in this pleasant grove, sending out scouts in quest of a permanent abode, allowing the emigrants to rest and replenish their supplies. The day proved to be a beautiful one, and quite a party of scouts were sent in different directions. The foragers did a land office business, bringing in an abundance of provisions.

The princess, being now of the proper age, was espoused by a handsome young lord who had accompanied the emigrants on their journey. The occasion was one of great rejoicing in the camp, and as night approached, and the scouts and foragers were all safely sheltered in the camp again, happiness reigned in the hearts of all. The scouts reported a land of plenty, but, it being narrow at this point and wider further on, they decided to move again; therefore the next day found the busy throng wending its way easily along; as they had luckily found the broad Napoleonic road that traverses this valley from the Alps to Bologna, their traveling was much less interrupted by impediments, and so much better speed was made, that by the close of the day, although they had stopped by a sparkling Alpine brook to rest, they had gained the centre of the broad, fertile valley, and pitched camp in a most lovely grove, and were preparing to take advantage of the pleasant evening to enjoy themselves in repose, when a towering specimen of some giant tribe approached their camp, and after view-

ing them for a moment, left with long strides, but soon re-appeared with a beautiful palace in his hands, carrying it as easily as if it were a mere speck. This he placed near the camp, and carefully directed some of the colonists to the door. He induced them to enter by gently rapping on the walls of the palace, which produced a sound very charming to these people, who entered, singing a well-recognized song, which caused their fellow-colonists to follow rapidly. Soon the camp was deserted and the palace occupied. The architects at once surveyed the interior, and pronounced it suitable for a home. Work was at once commenced, and the giant whom we will introduce as Count Berberini, a noted Italian lover of nature, remained long intently observing the newly-arrived colonists, which we will now present as the only surviving colony of "Honey Bees" left in the peninsula, excepting, of course, those in the marble cliff palace so recently vacated by this emigrating colony.

Count B. had before the great drouth taken much interest in the Italian bee, and was well versed in bee lore, for the age in which he lived. Being absent during the latter part of the great drouth, his bees all died, as did all the bees in Italy, so far as could be ascertained, for a number of years none being seen. These created quite an excitement as they passed high over the heads of peasants, en route from the Alpine cliffs, and many were the regrets at the height and speed of the bees. Count B. considered himself indeed a fortunate man to again possess a colony of bees; especially so, as these were the largest and best marked bees that he had ever seen, and they seemed gentle as flies. During his previous years of experimenting with bees, he had met with great success in multiplying colonies by the use of a combination of shallow brood chambers, with slats across the top from which to suspend their combs. As colonies in-

creased in strength, empty sections were added until the hive was tiered up as high as was advisable. This colony was hived in two of these sections, owing to the colony being too large for one section.

The hive was carefully levelled up, and Count B. hastened off to call his daughter to come and see the new arrivals. As the Lady Ginevra came forward, with an easy, graceful movement, a casual observer even would have discovered in her a very superior personage. Tall, with a lovely form and carriage, jet black hair and sparkling, black eyes; broad, intellectual forehead, and a voice as musical as a flute; cheeks aglow from a wealth of pure blood lately sent coursing through her veins by a rapid ride on the back of a noble looking black horse, from which she had just dismounted. The father seemed justly proud of her, and as they walked leisurely along side by side, a striking resemblance between the two was impressed upon the observer. When the hive was reached, the lovely girl almost danced for joy.

"Why, father, they are the largest and prettiest bees I ever saw. How does the queen look?"

"She is simply perfection; the largest and best-marked bee I ever saw. The honey season is just in its prime now, and I think from the indications that it is going to be a long one, and there being no other bees to divide the forage with, these beauties will have a regular picnic, and I hope to be able to divide them several times this season. See, they are bringing in honey now, and they have not been hived over an hour. Well, the servant calls us to tea. We will come again and see the pets."

A week later, Count B., seeing a collection of bees on the front of the hives, recognized the fact, and much to his astonishment, that they needed more room, and ordered a servant to bring him several new sections of hives, and place them in a convenient place in the

shade of a tree. Carefully removing the cover, he was astonished to see them offer no resentment; also to find the hive well filled with beautiful straight combs neatly capped over. Lifting the top section at the rear end, he was surprised to find the lower hive well filled with comb and brood, and on further examination, to find considerable brood in the upper section. He had the servant level up one section of the new hive by the one occupied by the bees, and placed the filled section on top of the empty one, arranging the remaining section on the top of another one placed on the opposite side. Thus arranged, both hives were exactly alike, consequently received about an equal share of the returning workers. A close watch being kept, Count B. found that the next day there was more commotion at the front of one of the hives than the other, and that the larger share of the bees were going to the more quiet, showing plainly the queen was in the hive where the bees seemed less disturbed. Fearing that the queenless colony would become too weak to rear a good queen, he moved the other hive several feet away, which threw the most bees to the queenless hive. In ten days a servant might have been seen carrying a tripod to the place occupied by the bees, soon followed by Count B., who, with the help of the servant, carefully hung the upper section of the queenless hive on hooks, so arranged on the tripod as to suspend it about four feet from the ground. Count B., seating himself on a rug under the hive thus suspended, soon selected half a dozen large, fine queen-cells, and placed them in half-inch augur-holes bored in a piece of light wood just deep enough to take in about two-thirds of a cell, after enough wool, or some soft material, had been placed in the bottom of the augur-hole to keep from jarring the tender queen as the cell was placed therein. This also held the cells in a perpendicular position,

and prevented killing the enclosed young queen, by the cell rolling around. This block containing the cells was placed in the shade, the hanging super on a hive-stand, and the cover replaced, one queen-cell having been left to supply them with a queen. A cell was now placed in the other section of the hive, and moved a little to one side, so as to divide the bees equally as before. Another cell was given a section of the other hive, which had been divided the second time long enough to decide where the queen was, as was done with the first division.

This gave our ancient, but progressive bee master, four colonies from one, and before the season was passed, he had increased by this method, to twenty colonies, which were carefully prepared with an abundance of stores to last until another season.

The following year, the same plan of increase was followed, which resulted in one hundred increase, which was about as many as Count B. wished to keep, and he began distributing them throughout the peninsula, greatly pleasing the farmers and fruit growers, as there had been almost total failures in the fruit crops and yields of clover seed since the loss of the bees. The immense crops harvested around Count B.'s apiary, while failures were reported everywhere else, proved just what this intelligent man had for years asserted that bees were prime factors in the production of fruits, clover seed and numerous farm products, although many learned men opposed this theory, some even claiming that the nectar removed by the bees deprived the flower from which removed of a vital part, thereby weakening its reproducing function.

The reappearance of fruit in the different sections where the bees were introduced, while trees remained barren in other places, was such a convincing argument that all opposition was annihilated.

For the convenience of Lady Ginevra,

a number of colonies were moved to an upper room, which was well ventilated by large windows, where she spent much time studying the habits of the bees, frequently with her father, and many useful discoveries were made by this intelligent student of nature, who preferred to accompany her father, who spent the larger portion of his time in searching the hidden mysteries of nature, to passing time in gay ball-rooms and in giddy society. This new strain of quiet, gentle bees so pleased her that she perfected several very fine paintings of them, being an artist of considerable renown. On one occasion she succeeded in capturing an exceedingly large and beautiful queen, a handsome, lordly drone, and a worker well filled with beautiful white honey, making her orange bands look almost transparent. Placing them in a group, after having kept the queen and drone caged until quite hungry, and arranging them on a comb after bruising a cell so they could reach the honey, and as they proceeded to take a lunch she hastily added the worker to the group, knowing that workers were *always* hungry, seized her brush, and rapidly painted the three, so correctly imitating them that they had such a life-like appearance that anyone was liable to involuntarily attempt to capture the queen for fear that she would fly away. Soon after she had given this group a finishing touch, her father came in, bidding her good morning. He was just thinking that she was unusually beautiful, and seemed to be occupied with something of especial interest. Returning his salutation, she produced her painting, and upon examining it, the count pronounced it perfection itself, an effort that would excite the envy of Raphael.

"Father," said the girl, with her cheeks all aglow, "I have been thinking for several days, while viewing these beautiful insects, so energetic, skilful and loyal, that you could not

make a better selection for the new insignia you were seeking from nature for your coat-of-arms, one more worthy of our great house and name. Do let me have the honor of making this selection. Let our noble house have engraved on its coat-of-arms and shields three of these beautiful bees. This group is an excellent representative one. See the lovely royal queen, the lordly drone, and this industrious worker. In these we have everything that you so much admire, and the requisites of success.

1st, Loyalty:—They are entirely loyal to their queen and kingdom.

2d, Bravery:—These little fellows will fight to the very death; *die* in defense of what they hold dear, as all true soldiers should do.

3d, System:—Nothing succeeds without system. See how systematically they are carrying on their work and arranging their household affairs

4th, Industry:—Here is voluntary industry.

5th, Strength:—Just see how perfectly they are formed and what they have accomplished.

6th, Gentleness:—See how quietly they go about their household duties—feeding the babes, and the queen depositing eggs when she finds where some young bee has emerged from a cell "room" that the workers have neatly swept out, and never an offer to sting or "use their deadly lances."

7th, Last but not least; Cleanliness:—Their beautiful bright bodies with the three pretty orange bands—so evenly encircling them, how neat and polished they look. Their palace is swept as clean as can be, yet those little fellows are still scrubbing away on the floor, as if some naughty boy had just come in with mud on his boots, and they seem to be dusting the walls.

All busy, busy, yes, "busy as bees." She had become eloquent, with her beautiful face all aglow and her dark eyes flashing, she continued: "When

our soldiers go to meet the enemy, with this insignia on our coat-of-arms, they have more represented to them in a condensed form, than could be signified, were their entire shields covered with the best selections. These little fellows embody everything requisite, or that could be desired in defenders of any great country. With an Italian army of such soldiers, led by one of our noble house of Berberini, we could defeat the mightiest army of Europe, and an invader's foot would never pollute the soil of this lovely land."

"Bravo!" cried the Count Berberini, "Three bees it shall be. Stooping, he imprinted a kiss on the sweet lips, that had just made this patriotic speech.

(To be continued in our next).

Margery.

My little maid with sweetest eyes
Upturned in innocent surprise
To catch the beauty of today,
What are your baby thoughts, I pray?

In happy innocence you look
On life, as children on a book
Unread, with much of wonderment,
Your eyes serene with sweet content.

What is this life, sweet Margery?
The query often puzzles me;
And yet at least this much, I know:
Life has full many a rose in blow.

And life hath not, in all its round,
A sweeter rose than may be found
Where you are nestling, souled with grace:
No thing so sweet as baby's face.

—Will Ward Mitchell.



The State Line Apiary of Geo. H. Eversole. Mr. Eversole in the Foreground,

G. H. Eversole.

"One of the enterprising citizens of the La Plata valley is the subject of this article. Mr. Eversole was born in Vigo county, Indiana, and raised to manhood in the great corn belt of Illinois, near Alton, from whence he emigrated to Colorado in 1872.

In the early excitement of the Black Hills gold discovery, he made a trip to that country; and as a consequence is no stranger to the war whoop of the savages, and as a memento of their hostility now carries three scars on his body inflicted by the Indians.

He came to this valley fifteen years ago, and for the first few years

engaged in farming. On bottom land he has produced forty-five bushels of corn per acre, and on mesa land thirty-two bushels.

He is the owner of the State Line apiary, the foundation of which he laid thirteen years ago. The average yield of marketable section honey, per colony, for thirteen years, has been sixty-five pounds. The prize colony this last season produced 168 one pound sections of fancy honey. His bees are the five-banded Italians, and are kept in the latest improved hives. He has all tools and latest appliances to facilitate the work in the apiary and honey room.

Mr. Eversole is a liberal subscriber for the bee magazines, and keeps posted on the business, making it a specialty. His income from the apiary is ample to enable him to take the world easy. He is a bachelor fifty-eight years of age. While justice of the peace, he united others in the bonds of matrimony, but has failed to get united himself."

The foregoing sketch of one of the PROGRESSIVE'S enterprising subscribers, with the accompanying view of Mr. Eversole's State Line apiary, is from the Ranch and

Range, a monthly journal published by H. S. Groves of Denver, Colo.

A Story with a Moral.

A man was too stingy, says the Kansas Item, to pay for a newspaper, and as he could not get along without it, he sent his little boy to borrow the copy taken by his neighbor. In his haste the boy ran over a \$4 stand of bees, and in ten minutes looked like a warty summer squash. His cries reached his father, who ran to his assistance, and, failing to notice a barbed-wire fence, ran into it, breaking it down, cutting a handful of flesh from his anatomy and ruining a \$4 pair of pants. The old cow took advantage of the gap in the fence, and got into the cornfield and killed herself eating green corn. Hearing the racket, the wife ran, upset a four-gallon churn full of rich cream into a basket of kittens, drowning the whole flock. In the hurry she dropped a \$7 set of false teeth. The baby, being left alone, crawled through the spilled cream and into the parlor, ruining a bran-new \$20 carpet. During the excitement the oldest daughter ran away with the hired man; the dog broke up eleven setting hens, and the calves got out and chewed the tails off four fine shirts.

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Improvement of Stock the Most Hopeful Field in Commercial Bee-Keeping.

H. H. HYDE.

The improvement of stock seems to be the paramount issue with all modern up-to-date bee-keepers just now. How can this be accomplished? is the question being asked by a great many. While I do not claim to answer that question, I have my views on the question, which will perhaps be interesting to some. The improvement of stock can be accomplished by selection in breeding, and the points to be considered, as I see them, in their regular order, are as follows:

Honey-gathering qualities (incidentally long-tongued bees.)

Prolificness of queens (incidentally hardy and well developed queens.)

Swarming, gentleness, wintering and beauty.

Therefore, in the choice of queen mothers we have a great many points to consider, it being hard to find queens having all the desired qualifications, very often making it necessary to breed from queens whose qualifications do not quite include all the points; but it is possible that

they very nearly approach them all. The honey gathering quality should be paramount to all others, for it is in the honey produced that we are to get our pay. Incidental to this characteristic will be found long-tongued bees, for it has been proven that all or nearly all the large yields of honey for the past year were produced by bees having long tongues. This is very reasonable, for we know that there are many nectar-secreting plants which secrete their precious sweets beyond the reach of the ordinary bees. Now if it is possible to breed bees with long tongues, we will be able to secure large quantities of honey ordinarily beyond the reach of the bees. Even if long tongues were not an advantage, they certainly are no harm. It has been shown that the difference in the length of tongues of different strains of bees varied all the way from 13-100 to 23-100, the latter length being reported by Editor Root of Gleanings, as the length of the tongues of the bees of one queen in their yards, while there has been many queens reported whose bees' tongues measured nearly that long, notably one queen's bees which we ourselves sold to Mr. James of New Mexico.

But what good will it do us if these individual bees are honey sucklers, unless the queens themselves have the ability to give us the greatest number of bees at the right time to gather the honey? The queens selected for queen mothers should therefore have the desirable quality of prolificness, and, incidental thereto, be hardy, well-developed queens; hence, long-lived.

The tendency of the bees to swarm should be the next point considered, and if possible, we should select those having the least inclination to swarm, but happily this point is almost included in the first quality

named, for it has been almost proved that those bees having the greatest honey gathering instinct were also the ones less inclined to swarm.

If we are to have pleasant bees to handle, we must select as breeders those queens whose bees are gentle; the more so the better, for while viciousness is sometimes considered evidence of the honey gathering instinct, yet it is by no means a rule, and we find just as industrious bees which are gentle.

The ability of the bees to stand the winter is a very commendable trait in our northern states. Of course it does not have any bearing in the south, but it is my opinion that where the bees possess the other desirable traits, they will also be good winterers.

Beauty should be the last point considered, for beauty is only for the appearance of the bees. While I have no kick coming against beautiful bees, for they certainly are pleasant to look upon, yet we should not breed for color only, as some have done in the past. I believe there is as good golden bees for honey as there is 3-band, yet I know that some are not, for in my large experience in buying stock, I have got hold of some of these bees that were not worth the postage put on the cages of the queens. These I have been compelled to destroy. In fact, it has been a case of selection all along the line, until now I believe I have a stock of Goldenes that I can recommend.

Now if we are to really improve our bees and have good queens, I think a good deal depends on the method used in rearing these queens. No queen that has been reared in a slipshod fashion can be as good as one reared under the best and satisfactory conditions. In the rearing of our queens we should rear them under the most favorable conditions.

If they are not naturally such, we must make them such. Then a good deal depends on the method used. I honestly believe that no queens reared, unless it be at swarming time, by the old methods are as good as the queens reared by the modern methods. My preference is the Doolittle, or a modification of it, but it is not my purpose here to go into a discussion of the best method.

The choice of drones is a very important matter. It is my firm belief that we as apiarists of the 19th or 20th century (as it is now) are not paying enough attention to the proper choice of drones. I believe that just as much toward the improvement of stock can be accomplished by the proper choice of drone-mothers as by the choice of queen-mothers. True, it is impossible to control all the drones in reach of our apiaries, as a rule, yet we can see to it that none but choice drones fly in our own yard, and that there are plenty of them. We should use our very best queens (as a matter of fact) for queen-mothers, and the next best for drone-mothers. We should have our choice drones out as early as possible in the spring and as late as possible in the fall. To accomplish this, we will have to use a little extra exertion. For early drones it is necessary for us to select our colonies in the fall, seeing that they are in good condition. Then early in the spring, go to these colonies and supply them with the proper amount of drone comb, and see that no other colonies have any drone comb in their brood-chamber. Indeed, it is advisable that none is allowed in any part of the hive, for bees and queens will sometimes steal a march on us, and go anywhere almost to rear drones. If you have box hives in your apiaries, or have no other

means of controlling the undesirable drones, then I would place drone traps on the entrance of all colonies whose drones are not desirable. In securing late drones it is sometimes necessary to feed a few of our choice colonies, then supply them with drone comb, and when the drones are ready to hatch, give three or four frames of them to a hive kept queenless, so that the drones will be preserved late in the season. Of course we will have to keep up the strength of this colony by giving it brood from others, and each time that they get a queen just ready to lay, take her away, and allow them to rear another. This will keep down any fertile workers, and at the same time preserve the drones.

A great deal can be done by exchanging queens with bee-keepers several hundred or even thousands of miles away, and by buying choice queens from queen breeders. But the greatest success will come by individual efforts, especially with those queen breeders who will take the matter up and give their attention to it as much as to how many queens they sell or how they are reared. As an individual queen breeder, it is my purpose for the next few years to give as much of my time as possible to the improvement of the honey bee, and whether myself and others who are working on the same line will be successful, remains to be seen; but it is my humble opinion that they will be successful, and that it will be only a few years, or decades at most, when we can say the coming bee is here.

Hutto, Tex.

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J. D. GIVENS, Lisbon, Tex.

An Encouraging Letter.

I have been a reader of your paper for the past two years, and I like it very much, having gained some useful lessons from it. When I began taking it, there was much in it that was "Dutch" to me, but I kept on reading and studying it until now I wish it would come every week. I have kept every copy for the two years and each year's subscription is sewed together in the form of a book, which is a good thing to refer to. One question: I would like some good brother to tell how to keep the insects and moths out of the comb honey after it is taken off from the early flow. I have learned to rather like the "vivacity," as it is called, in the PROGRESSIVE, for it has given many points that otherwise would not have been brought out so plainly. Find enclosed my little old fifty cents for the coming year. With best wishes for the PROGRESSIVE.

Chestnut, Ill. P. D. WAKELAND

The Progressive Bee-Keeper.

A journal devoted to Bees, Honey and Kindred Industries.

TERMS: Fifty cents per year, in advance.

G. M. DOOLITTLE, }
WILL WARD MITCHELL, } Editors

We wish everyone a happy and prosperous New Year.

We would respectfully suggest that there is enough of interest for bee-keepers to write about without continually criticising others. Such always smacks of petty spite.

We are enjoying the best and largest trade we have had since we have been in business. Though we started in September we are compelled to run overtime to keep up. Our supplies have a splendid reputation for quality, that is why they go. There are none better.

The new editor of the Progressive Bee-Keeper, Will Ward Mitchell, starts

in well, and it is not likely that the paper will suffer under his guidance. He is the man who has written so much excellent verse for the Progressive, his poems forming quite a feature of that journal. Success to him.—American Bee Journal, (Geo. W. York, Editor,) Chicago, Ills. [We appreciate such a notice as the above, coming as it does from the oldest and one of the leading journals of its class in the United States.

We are late this month. A brain overtaxed and badly strained eyes necessitated nearly a fortnight's "furlough." Beside our work on this journal, we issue a small weekly, write for several publications (preparing for the future, you know,) get out from 50 to 100,000 catalogs each year, with job work galore, read the latest books with Bro. Leahy (who is a delightful critic), act as secretary in two lodges, superintend a Sunday school, teach a class mostly of teachers, and in fact, are not burdened with idle hours. We hope soon to catch up with our work, now that our eyes are better.

Not infrequently errors creep into a publication—typographical errors, we mean—none is exempt. We try to avoid mistakes, but a compositor is not infallible; especially is this true where the typo is a beginner. Nor is a proof-reader less fallible. We will editorially or in a footnote take pleasure in correcting a mistake, but we do not think it necessary to use much space in alluding to the fact. As to the mis-use of punctuation, most of us would have to acknowledge the corn, but while we edit this journal, we do not expect to send it out flawless, and must respectfully but firmly omit all such criticisms as well as dissertations on punctuation.

THE CASE OF UTTER VS. UTTER.

Several months ago, in the County of Orange, New York, two brothers

fell out, the one a grower of peaches and the other a bee-keeper and member of this Association. The peach-growing Utter sued the bee-keeping Utter before a Justice of the Peace, and asked for damages done to plaintiff's peach-orchard by the defendant's bees. The case was tried, and after a good deal of damaging evidence was introduced by the plaintiff, and astounding revelations as to what bees could do and did to those peaches were heard, the learned judge decided against the bee-keeper and assessed him \$25 and costs. While there was a lack of *competent* evidence that the bees were guilty as charged, it seems that the fruit-growers had the sympathy of the court. The case was sensationally written up by reporters and the matter was given wide circulation thru many papers. The coloring given to it was generally against the bee-keeper. The Rural New Yorker, however, used its influence to show that bees are not guilty of injuring sound fruit. But a letter from its editor, besides communication from many bee-keepers, convinced me of the alarm that was felt if this decision were left unchallenged. If that case could be quoted in the future it was feared that other bee-keepers might suffer. The general manager, therefore, with the concurrent judgment of a majority of the board of directors, ordered the case appealed to the county court, and it is proposed there to try the case over again on its merits, with enough expert witnesses to get the facts before the jury. As the brother who was the defendant in this case is a poor man, and, as in the judgment of the general manager, the matter was one which had to be fought out sooner or later in the interest of truth and justice, he pledged \$100 toward a favorable verdict. The Association will be obliged also to pay the expenses of several expert witnesses while attending the trial. The result can not be ascertained in time to go into this report.—From

the Fourth Annual Report of General Manager Eugene Secor of the National Bee-Keepers' Association.

We clip the following from the American Bee Journal, of Jan. 10:

"On New Year's day the office and floor occupied by the American Bee-Journal, bee-supply and honey business, was made almost a complete wreck by floods of water coming down from the upper floors where a big fire broke out about two o'clock in the afternoon. There was something like 20 fire-engines throwing water through and on top of the building in an endeavor to put out the fire, and of course practically all of that water came down through our floor. Fortunately the issue of the Journal for mailing on Wednesday, Jan. 2, was still in the office of the printer, and thus was saved, as were also the forms from which it was printed. Through the kindness of one of our former partners we were able to mail the Bee Journal in his office, thus preventing any delay in getting that number off. We are writing this Thursday evening, Jan. 3rd, and are not sure but that this number of the Bee Journal may be delayed. If it is, it will likely be the first time in 20 years, on the publishers' account, that it has failed to be placed in the Chicago post-office on time. Also, it may be that we will be unable to get out more than 8 pages instead of the 16. If so, we feel very certain that bee-keepers will not complain, knowing that in case of fire no firm can do exactly as they would under other circumstances. We do not know just yet what our loss will be on printing office, bee-supplies, and honey, but feel very sure that it will be sufficiently large. Of course, we had everything fairly well insured, but as all know who have had experience with insurance companies, it will be understood that there is no likelihood of getting the full amount of the loss. This misfortune comes at a time when it is not easily borne by the publishers of the American Bee-Journal, so that we would like to suggest that all who are owing on their subscription please send it and also a renewal for 1901. While the loss on account of the fire will be a good deal, it of course will not interfere with the continuation of the Bee Journal. However, everything sent in on arrearages, renewals, and new subscribers, will be gratefully received at this time.

We regret our brother publisher's misfortune and hope his many patrons will pay up any back dues at once as Bro. York has been giving us his best

efforts and the "Old Reliable" is far ahead of what it ever was before. We know of nothing that would be more cheering to Bro. York than for delinquents to "pay up" and send in their renewals.

The Year's Bee Papers.—What have you done with your bee papers for the year 1900? Scattered all about the house and honey room? If so, you cannot prize them very highly? If you prize them as you should, and use them to the best advantage, you will lay each number as it comes, after being read, in a place prepared for them, and when the year is up, you will bind them in some way, so that in years to come you can turn to any plan or item that may have seemed good to you when first reading, at a moment's notice, refreshing your memory about such good things when the season for using them arrives.

How Bind.—That depends upon how nice you wish it done. If you care for the looks very much, then the best thing to do is to take or send the volumes to a bindery and have them bound, especially if you can pay the cost without feeling it, or scrimping yourself or family by so doing. While volumes bound at a bindery are very nice to look at, the matter in them is in no way enhanced by their nice binding, and as some of us care more for the matter these volumes contain than we do for nice binding, almost any plan answers our purpose so long as the volumes are handy for reference, and permanently preserved. My mode of binding is to get the year's numbers in good even shape, and in the order in which they came, as to months, so the pages will number correctly, when they are clamped together so as to hold them firmly, while I drive four slim wire nails, of suitable length, through all, clinching on the back side. This holds them securely, and answers all practical purposes.

Feeding Bees in Winter.—This is something I am asked about often, those asking generally winding up with "Can it be done?" Yes, it can be done, but it is not best to put off feeding for winter, where the bees are lacking for stores, longer than to the end of the last expected honey flow. If the bees have not enough then, you will know that they can only lose in stores the longer they wait. Then why wait longer? I would like to have the procrastinating ones try to answer that question, for in the trying they would be brought to the conclusion that to wait longer "would be a sin." If from sickness or otherwise we find our bees short of stores in winter or cold weather, they can be fed, but as a rule, such feeding has a tendency toward unsuccessful wintering, though not so much so as would running the chances of their starving, when very light in stores.

What to Feed.—Knowing that we have colonies which are very short of stores in midwinter, the question first arising is, what shall I feed? In this locality there are only two things that look toward success. The first is frames of honey which we have stored away during the summer, or those from very heavy colonies which they can spare. If the latter, they can be taken out at any time when it is so cold that the bees in forming their cluster have receded from the outside combs, which are those the most likely to be heavy with honey. Take them out carefully, so as to disturb the colony as little as possible. If you do this as you should, the colony will not break the cluster at all, and be none the worse for your work with them. It is best to have a board fitted so you can slip it in the hive in place of the frame of honey taken out, so that no vacant place is left for a draft or circulation of cold air. Having the combs of honey, they are to be put in a warm room for a few hours to become so they will not chill

the bees when put in the hive. Remove one, two or three of the empty outside combs in the colony needing food, or those the colony which needs feeding is not clustered on, when the warmed combs are put in the hive, spreading the combs of the hive apart till these warmed combs come in contact with the cluster on one or both sides. Otherwise, the bees might starve without being able to reach the combs you set in.

Sugar Feeding.—The best way to feed bees in winter, that next to frames of honey, is to feed them with candy, such as is used in shipping queen bees. This candy is made of XXX powdered sugar [do not use the kind called confectioner's powdered sugar, as that is not pure sugar, it being a mixture of sugar and starch, the starch being likely to give the bees the bee diarrhea] and honey, the formula for making being as follows: Put the desired quantity of sugar near the fire till it become a little more than blood warm, and set the honey [any kind of extracted honey that is fit for bees will answer] on the back part of the stove, till it is as warm as you can bear the hand in. Now stir the sugar in the honey until you can stir it no longer, when you are to knead in more sugar, very similar to the way a woman kneads up flour for bread, kneading in and kneading in, until you have a loaf of candy which will retain its shape when placed on any flat surface in your warm room. Having it thus, make up as many loaves containing the needed amount for each colony, as you have colonies which need feeding, when you will press them down into a flattish oval form, of the right shape to lay on the frames over the cluster of bees which needs feeding. With a little smoke, keep the bees down so they will not crawl up over the tops of the frames while you are laying the candy where needed. Having the candy on, cover it and the top of the hive over with any old garment grain

bag, piece of old carpet, or anything of the kind, so that all may be as warm and comfortable as possible, and the work is done.

The Honey Bee the Most Powerful.—I notice by the papers that Mr. Felix Plateau once conducted some experiments of a most positive character. He caused little carriages filled with heavy weights, to be drawn by beetles, thus transformed into miniature horses. Insects with good flying powers he changed into imitation birds of prey, by loading them, and he established the fact that the muscular power is in ratio contrary to size, the smallest insect being capable of putting forth the greatest effort. He established the fact that a beetle is infinitely stronger than a horse, that is, is fully twenty-one times stronger, and that a bee is thirty times more powerful. The horse can only exert a force equal to the sixty-seventh of its weight, and a beetle draws easily a load equal to fourteen times its weight; while a bee, fastened to a little carriage, can easily put in movement a weight twenty times that of itself. In other words, a beetle can draw or pull fourteen of its companions, and a bee twenty. Good for the bee, says Doolittle.

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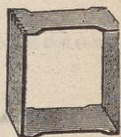
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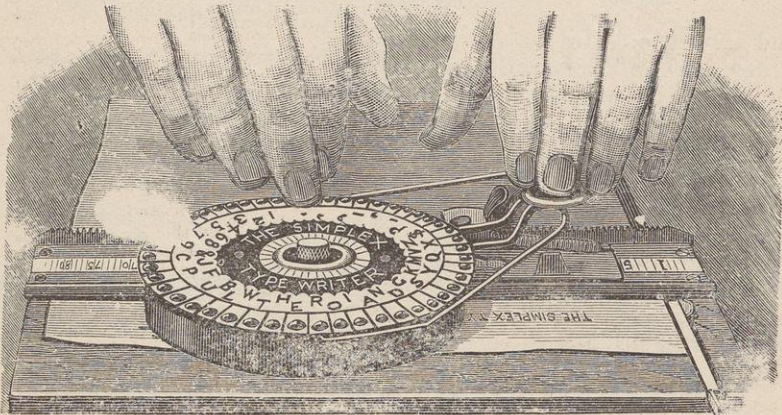
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They won't. They have to be told of it many times over—seeing several copies is more convincing.

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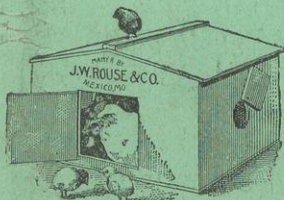
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