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MOON'S

BEE WORLD.

A GUIDE TO BEE-KEEPERS.

VOLUME 1.

JUNE, 1874.

NUMBER 7.

Correspondence.

Scraps from Illinois.

In the April number of the *WORLD* I see friend Johnson is down on upward ventilation and refers to "the losses sustained by those who pursued the unnatural theory of upward ventilation." In this part of the country in the winter of '72 and '73 nine-tenths of the bees died out, no matter in what kind of hive they were, frame, box, or "gum;" up they went, like Tweed's "woodbine." And no difference to be seen in the ways of wintering, whether on summer stands or in cellars, packed or unpacked, upward ventilation or none at all, the result was the same. In the box hives, with the bees left to their own sweet will, cracks all plugged air tight with propolis, the mortality was as great as in the frame hives with open top, cobs, etc., in cap. Some writers on the no-ventilation theory refer us to bees in a state of nature, in a hollow tree; no ventilation there! Why, my dear Sirs, don't you know that a hollow tree, lined as it is with rotten wood, is one of the best absorbents of moisture there is? And that is just

what we are trying to get rid of in giving an upward current of air; not a rush as would come from a blow pipe, but a gentle upward movement to carry off the water and leave the warm air in the hive. The top of the straw in caps of our stocks, the past winter, was covered with mildew, and the hives below, dry. Where would you rather have that mold, in the hive on the combs, or outside on the straw? One winter I had stocks that were getting covered with ice, on combs having tight top bars and honey boards on. I took them into the house, dried them out, filled the caps with cobs after taking out one frame and spreading the rest, replaced them on their stands, and had no more trouble with ice or water. What would have been the condition of those stocks if they had not been given upward ventilation?

DYSENTERY FROM POOR FOOD.

In the disastrous winter of '72 and '73 I lost twenty out of twenty-one stocks, and in every case where they had the dysentery, it did not commence until the swarms were reduced to about a pint of bees each. Was it the honey or cold that gave them the dysentery? if it was the honey, why

didn't it do it before? We talk about wintering bees. It's not the winter part of it that bothers me. In the words of some correspondent, "It's the SPRINGING them" that plays the mischief. Four-fifths of the stocks that I have lost have died in the months that ought to be spring, but from cold rains, east winds, snow, etc., it is anything but "balmy spring." Think of it, you Southern bee friends, snow a foot to fifteen inches deep on the 5th of April, while you are hiving swarms. Yet up here is where a Novice, a Gallup, a Grimm, (Katie,) and away up in frozen Minnesota a Hosmer, have made such a stir in the bee world by their big yields of honey.

EDITOR'S FOOT NOTES.

Friend Moon, there is one feature of your Journal that I think very highly of, and that is the foot notes under each article. If there is a question to answer, there is the place to do it, and if something in the article calls up some idea or bit of experience, how much better it is to have it right there, where we can see what you mean and not have to turn back and look for it, when such ideas are given all in one place.

BUCKWHEAT IN CORN,

Is a No. 1 idea I think, but works very poor here, for the farmers don't like to and wont plant buckwheat for it is so hard to kill out if it once gets into a field. Don't know about that—never raised any myself; how is it friends, will it stick to land like Canada thistle? Buckwheat fields, here, are like "hen's teeth," few and far between.

AT LAST.

And have we at last, after so long a search, got a faint clue to Miss Emma L—. Yes, friend Argo, if you know, pray tell us who she is, and settle it. We had a big suspicion that "Miss Emma," covered a "masculine" by a false name. Was it so? If not, I congratulate her better(!) half on the conquest he has made.

WEATHER, &C.

Fruit trees are in full bloom now,

but poor chance for bees to work, for at present we are having a cold rain. Have had a few beautiful days, the first this spring, and bees have been improving them, but have got a damper now. The BEE WORLD for May is very much improved, in contents and appearance. Success to you.

Fraternally Yours,

W. M. KELLOGG.

Oneida, Knox Co., Ill., May 15 1874.

Friend Kellogg says that in the disastrous winter of '72 and '3 he lost twenty swarms out of twenty-one, and in every case where they had the dysentery it did not commence until the swarms were reduced to about a pint of bees each; but he does not say when this reduction took place. We infer that it was in the spring from the fact that he says that his trouble with his bees comes mostly in the spring; and that four-fifths of the bees perished in the months that should have been balmy spring. Admitting this to be a fact, it may be set down that it was not cold weather that proved so disastrous, which, with our experience, looks quite consistent. We know of swarms that were placed in their winter quarters where it would not freeze fruit, that were as badly affected as any we ever saw. It was not the cold that gave them the dysentery. Had it been we undoubtedly would have a continued history of this fatal complaint for generations past. We had swarms that stood on their summer stands that showed no signs whatever of the disease; but they were fed on sugar syrup prepared for them. Again we know within a few miles distance of swarms that were not affected. We are, and have been, of the opinion that poor food was the cause of the mortality. We have no doubt but long-continued cold weather and dampness has a ten-

dency to aid this disease in its progress. Bees could not remain long in the hive when their bowells contained food that produced irritation, without loss. We have had bees remain on their summer stands for three months without a fly, and yet winter finely. —Ed.]

Recollections of other days.

Your article in May number under this head, recalls just such recollections to my mind, and I thank "H" for his happy version of those good old days. It seems but a short time ago when we used to hunt bees, which was a favorite pastime of mine once, and no doubt "H" knows how plenty they were and how exciting those hunts were. On a warm day in spring we would take our box filled with bits of comb and go into the woods, and it would not be long ere we would have a prisoner, whose ransom was the secret to his forest home. How anxiously was he watched when he flew away, laden with the new found treasure; soon we had another adventurer within the prison, and ere long we were at the foot of some majestic oak or whitewood, the exultant possessor of an other swarm.—For a long time we would watch them as they played in the sun, or dived into the entrance, only to come out in still greater numbers. Then scraping away the dirt, our name was marked at the foot of the tree or on some projecting root, so as to be secure from inquisitive eyes, and we started away sure of more good luck. Sometimes our hunt was embellished with a degree of excitement most exhilarating. We would take a friend and then there would be a strife to see who would find the most, for each had his own. I remember once running nearly a mile to a large tree which stood away cross the open country. He who reached the tree first should have the bees if it contained any; almost any hollow tree contained a swarm of bees, and we saw that this was hollow. You should have seen us as we ran. We

thought more of the honor of superior speed just then than we did of the bees. But our wind was good and we reached the tree some rods ahead of our competitor. Our sport did not always terminate as successfully and often we returned leg-weary and hungry, our countenance betraying our ill luck. Three years ago in the wilds of Michigan, we were invited to help cut a bee tree, by some friends we were visiting. Nothing loth we accepted the invitation, taking a hive, and a movable comb one at that, for we have learned a great deal since we first hunted bees—then for honey—now for bees—we started for the field of action. Fortunately the tree stood on the side hill and we fell it up hill. In falling it split, and to jump on the log and run to the entrance took but a moment, while others siezed the axes and split off pieces of wood. We being old hands at it had taken the cloths used for smoking and stood at the entrance with impunity, while the frequent ejaculations from the choppers told that the bees were retaliating, if not upon me. As fast as possible I cut out brood comb and dipping it into some melted bees-wax and rosin, put them into the frames of the empty hive. What was my consternation to find the queen, a large handsome one, apparently dead, although she subsequently proved to have been only stunned. Supposing her dead we put in all the brood comb we found, and hoped for the best.—But on going to the stump where we had lain her to take to our friend's wife who had never seen one, we found that she was alive and a large handful of bees had clustered about her. Joyfully taking her to the hive we put her in, picked up the honey and started back, having been less than an hour cutting the tree and getting the swarm. I never learned how they succeeded but think they did well. These are one of the many experiences of a bee hunter's life, and, we doubt not you are all familiar with just such experiences. You have a good corps of writers, Mr. Editor, and I hope they will stand by

by you, for with such an array of correspondence, you are almost invincible. M.

Mansfield, Ohio May 24, 1874.

Our Southern Bee Journal.

"Long wished for come at last!" To wit, a Southern Bee Journal. One suited to the wants of the South; and that will compare favorably with her sister Bee Journals North, notwithstanding their age and experience. Our Southern Journal, located in our midst, knows and anticipates our wants. When it gives instruction for any manipulation of the apiary, we do not have to make two months allowance for the difference of climate south and north. Bees have commenced swarming in our country and are generally in fine condition. Our bee-keepers are waking up to the importance of frame hives and improved bee culture. I am introducing the Dixie hive, "Galluped over;" that is, I am using the Dixie hive with the Gallup size frame, 11 x 11, which I like the best. I also use the upper story only half the height of the lower, believing that bees will commence work in a shallow frame or box, sooner than in a deep one. I will close by wishing the BEE WORLD and editor all possible success.

A. H. R. BRYANT.

Kemp, Kaufman Co., Texas, May 11 1874.

It is gratifying to us to know that so many appreciate the worth of the WORLD, and not only appreciate it, but are willing to work for its prosperity. When we commenced the publication of the WORLD we felt many misgivings as to how the public would receive it, but the welcomes that has greeted it from the first issue, have dispelled all anxiety on our part. We shall strive to improve the WORLD and hope we may deserve the kind support which has been so liberally bestowed upon us.—ED.

Notes from Illinois.

The May number of BEE WORLD is duly recieved, and as usual its contents

were interesting and instructive. Our bees are not as far advanced as yours in the South, but as a general thing have wintered well where they had sufficient stores, and they are now building up rapidly and bringing in pollen and honey—the latter from fruit blossoms mostly; and there never has been a more abundant supply of them, as fruit trees of all varieties adapted to this climate are laden with them, being one mass of bloom. I must say I almost envy you your sixty new swarms that you report in your letter of a few days since. I divided one swarm of Italians yesterday but have had no natural swarms yet, nor will there be for four weeks. I think the location here as good as any I have seen for apiculture, though I have never been any farther South. Last season our bees paid about \$20 per swarm, and two years ago \$33, in a location one hundred miles north of this and as far as I am able to judge, not as favorable as this. I see considerable said in two last numbers of WORLD about hives, and also in National Bee Journal. I don't suppose the time will ever come when all bee-keepers will agree upon one hive any more than they will upon one horse or cow, one plow or reaper. Some like one and some another. We have used several different kinds and worked, or handled bees in a great many more. Among them, the Thomas, Langstroth, American, Kidder, Alley, Buckeye, Starbuck, Cottage and a score almost of others, and give our preference to the Thomas, as the most simple and easily controlled, and managed. I know it may be said that I am interested in that hive, but I gave the matter careful consideration, and handled and saw a good many before I declared upon this hive for the reasons above given. And furthermore from its form and size it is better calculated for the generality of bee-keepers, and is ornamental as well as useful, though the ornamental part would be of no consideration if not coupled with weightier reasons. I am waiting to hear the conclusion of the article in relation to

hives commenced in the April number, but would say to the writer, (if he will take it in a friendly way,) to sign his name to his writings, if it is not too long. I think I see an improvement in the WORLD, and hope it will continue on in the good way, and that the Moon's rays will gleam on all alike. You did not send me the March number, or if you did I failed to get it, so send it along and if you will send me some extra copies I think I will be able to get some subscribers for you; as there is room for them here. Most bee-keepers need such information as can be derived from the columns of a good bee-journal.

Yours Truly,

R. A. SOUTHWORTH.

Sullivan Ill., May 13, 1874.

A great deal has been said about a standard hive—a standard frame, etc. As yet we believe there has been but little attention paid to the proper theory, except by the few. We now have almost every size and shape that could be gotten up. Of parties that are equally experienced in bee culture, some will adopt one, and some another. A certain shaped frame will work well in one place and be a failure in another. One hive will require more care to winter bees in than another. One person wants a frame from ten to twelve inches in depth, while another prefers a shallow frame. We have been repeatedly asked to give our views as to the proper depth of frame. Experience has led us to adopt a frame about twelve inches deep. As a rule we have found that the brood received more animal heat when directly over the swarm, than it would when spread over a broad, flat surface. Heat raises, and when the brood is centrally located and especially above the swarm, they evidently receive more warmth. Then of course, the same sized swarm

could spare more workers for the field and keep up the required animal heat than they otherwise could were they spread over a broad surface.—[Ed]

Rambling Notes.

EXTRACTING BEES WAX.

I have seen several articles on different plans of extracting wax; I have tried almost every one, and like the following best. Put the comb into a pot and boil it sufficiently to bring out all the wax. As it comes out it will rise to the top; have a pan of cold water setting by, dip the palm of your hand into the pan of cold water with the hand open and fingers close together, then on the surface of the pot containing the comb and immediately immerse the hand in the cold water, and the wax will remain in the water. Repeat the process until all the wax is taken from the pot; no matter how hot the wax, there is no danger of burning the hand if done quickly. Thus you get the pure wax free from all impurities, and it is much nicer than that taken by any other process I have been able to discover. I have taken premiums at fairs for the finest and nicest wax, which was extracted in this way.

SAVING COMB FROM BEE MOTHS.

Not long since I saw it stated in some Bee Journal that smoking comb with brimstone would kill all the eggs and young grubs of the bee moth. Having about \$20 worth of as nice, beautiful brood and honey comb as I ever saw, saved from hives the bees had deserted and surplus in transferring—some of the brood comb two feet long, and I thought the best I ever saw—apparently clear and free from bee moths, I procured one half of a pound of sulphur, and set my gums with the comb in them over the burning sulphur, and gave them a good smoking, thinking if there was any virtue in the sulphur I would smoke enough to be sure and save my comb: in one gum I found a few ants. The sulphur did not appear to disturb them in the least. I set the comb in a

cool, dry place, and in eight or ten days had occasion to use some of it; and on examination found all but one lot completely destroyed by the bee moth. I have never been able to keep it in the summer; the moths will universally destroy it.

BEES ARE NOT DOING WELL.

In the early part of the season everything was favorable and the bees started large broods and most of mine, by the first of April, had the most numerous colonies I have ever seen at that season. Some six weeks of very cold, wet weather has compelled them to consume all their surplus for themselves and brood, as they collected nothing in that time. The result was that more than half of the bees in all the hives died, and although they have been gathering honey for about ten days they are still not strong. During the cold, wet weather they killed all the drones and it was with great difficulty and constant and careful feeding I saved mine. I found those fed on honey did much better than those fed on syrup, and would advise spring feeding on honey as far preferable for starting and raising brood. I have had but one swarm. They were Italians and went off.

AGE OF BEES.

That you may approximate this is all that can be done. Like everything else in nature they live to different ages. The most of mine this spring, I think, did not live over six weeks. It is a fact (why, I cannot tell,) that bees are shorter lived in the spring and brood season than in the winter. I think that in some latitudes bees (some of them, at least), live as long as eight or nine months, and in the same latitude die younger in the honey season. In the South there is not so much difference as North, in the age of bees during the winter and summer. I think that bees frequently are months hatching in the winter from the time the eggs are laid until the bees mature. I think, with proper temperature, the eggs may be kept for months. like the eggs of fowl, before they are hatched.

THE MOTH EGGS.

The eggs of the moth may, like the bee, be kept months, if not years without hatching. I once had some comb very rich with wax; and made it into balls about as large as my fist, and put them into an empty ice can in July. They were kept air tight in this can for the purpose of using in repairing cracks in gums. I kept these balls in the cans for thirteen months, took them out for use, and found no worms in those I saw. I laid some not used in a warm room, and in ten or fifteen days I opened them and found the moth worm abundant. These eggs were kept thirteen months before hatching.

THE NAME OF "G."

Mr. Davis of Charlestown, Ill., requests that I give my name and post-office address. I can not see that this would do any good but I say to Mr. Davis, my name is W. G. Gammon, and postoffice address Rome, Ga.; although I do not live in Rome, but in the "Flat Woods." I still prefer to sign my name as heretofore, G.

What a Georgia man is doing with Bees.

We clip the following from an Atlanta paper.

Col. Richard Peters keeps several thousand of these model serenaders, and we went to see them the other day.

We found this fine old gentleman, (with the splendid tone of his complexion giving against his snow white hair that contrast of color so indictive of health and prosperity only to be found in him who spent his life and spent it well, in this rich and splendid climate,) sitting on his broad old fashioned piazza, watching the motions of a troupe of our friend Knapp's buff Cochins, that were playing about a well cut, and well kept lawn of blue grass. Col. Peters house, to be characterized in one word, must be called old-fashioned—utterly despising the modern trappery of Mansard and Minaret, it stands, simple, plain and unadorned, but rich and

comfortable; furnished inside like the nest of some king bird—a house built for the benefit of the family, and not for the curious gaze of the public.

When we told Col. Peters that we desired to interview him on the subject of bees, he blushed with a modesty of a man who doesn't like to be rushed into a conspicuous print, and yet his face lightened up with the ardor of a man who knows he's possessed of a lot of information that the world ought to know. He led us into a cosy library, and announced himself ready to evolve.

"Let me commence by saying that from actual experience I deem bee raising one of the most important of the small industries our people can engage in, and it is certainly one of the most lucrative. The difficulty with bee raisers in the South has been that they could not keep the moth out of their hives. This difficulty I am certain is absolutely obviated by the new movable frame hive.

This hive has a very small entrance in the first place, which enables the bees to guard their hive all the time. Night and day a bee sentinel stands at this entrance, watching for the enemy. The moment a miller (the moth's mother) appears on the stand the sentinel pounces upon him, and sounds the alarm. In a jiffy the whole hive is at his back, and they generally kill the intruder before he enters the hive. Should he get in, however, the shape of the hive enables them to attack him in flank and rear, and they soon make it too lively for him. Even should he get where they cannot reach him it is quite easy for their keeper to take the drover out and brush him off.

Now this trouble from the moth being eliminated, bee raising is a greater success at the South than in the East or West. First, they are not subject to any of those diseases here which are so fatal and so prevalent in the West, such as foul brood, etc., and secondly they can be easily wintered in their summer stands, while in the North every hive must be taken in doors, or the bees will freeze.

"What are the average profits of a hive of bees?"

"Hardly to be believed, sir! Suppose you buy a swarm of common bees—say. They cost you, hive and swarm, about five dollars. Now this swarm will yield you during the year another swarm, which you can sell for \$2,50; and besides this, from 50 to 100 pounds—say, for a safe average, 75 pounds of extra honey. This will sell readily for twenty cents a pound the very lowest figure. This will give you:

OUTLAY.

Cost of hive and swarm	- - -	\$5 00
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RECEIPTS.

Sale of extra swarms	- - -	2 50
Sale of extra honey	- - -	15 00
		<hr/>
		\$17 50

Leaving you a clear profit of \$12 50 besides leaving you a hive on hand to start the next year with, which thus will yield you \$17,00 profit. Now, any farmer can put up ten or fifteen hives. The keeping of these will cost him actually not a cent, for they will get their honey of flowers or the clover patch, or orchards, and they will yield him \$200 or \$250 a year actual profit besides what honey he can eat. Of course he must pay some attention to them and see that their intelligent demands are answered. He must make his wife throw an old cloth of some kind over the hives in the dead of winter to prevent the cold currents of air from sweeping through the cells. It is the most profitable small crop a man can have, and decidedly the prettiest and most interesting. Nothing gives me more pleasure than watching the habits of the bees."

"They are very intelligent, are they not?"

"Almost as smart as people! And the carryings-on of their colonies remind you very much of communities of folks. For instance, you know the drones are the gay gallant holiday fellows, who are born just to consort with the queen. Now during the summer, while the royal ladies, and their bespangled courtiers are enjoying

their espousals, and living through the honeymoon, the brown coated little workers step aside humbly with their loads of honey to let the magnificent lovers pass, and always provide them with the choicest honey. As soon, however, as the summer is over, and the queens retired to their cells to deposit their eggs, the workers determine that there is no use wintering these idle rascals for whom their queens have no further use and they pitch in and kill them, bedraggle their fine coats, split their wings, and then shoulder them and hustle the mangled corpses out of the hive, perfectly carrying out the story of the idle boy in the Sabbath School book. The fun of it is too, that the drones seem to know that such is to be their fate; they take it easy and never resist. They've had a good time and seem to be willing to die.

The bees are very much disposed to rob each others hives too. They don't know what fear is, and will fight any thing. A swarm gets out of honey, or finds it has not enough to last through the winter, and it organizes itself into a raiding party, and sallies out on the war path, ready to attack the first full hive it finds. A party of these robbers came and set in on one of my Italian hives the other day. I saw the whole fight. A good many of my bees were out gathering honey, and the marauders effected a lodging on my stand and fought with desperation and contested every inch of ground. It was the fiercest fight you ever saw. A regular hand to hand Waterloo. A tempest of short shrill notes and hoarser hums, (the war cries of the combatants) were heard for fifty yards. The fight is strictly hand to hand. An Italian throws himself in front of an American bee to stop his progress. Two or three of the little Americans throw themselves with blind fury on the gigantic foreigner, and nip him with their sharp, snapping beaks, in a thousand places. The object with him seems to be to catch the little bee by the tip of the wing, and give it a sharp twist, which breaks it or splits it, and

deprives him of the power of flying. It is then easy for the Italian to bounce him and finish him up. The robbers have just about fought their way into the honey cells when the tide of battle begins to change. A great many of the Italians have come in from their honey hunt; and seeing in a moment how things are, pitch in; and being fresh and vigorous, literally cut their way through the ranks of the little Americans. Enough of these have come to turn the fortunes of the fight. The defeat never becomes a rout, though. Though thousands of the robbers are slain, the balance continue the fight—until all are dead except a few dozen of them. They still wage the unequal war, being determined on "honey or death," and they still struggle until actually the last one is slain. Then without a moment's rest the Italians plunge into the mass of dead and dying, and commence carrying the bodies out of the hive. I came to their help, and actually took two quarts of dead bees out of the hive, and the Italians retired to dress their wounds and discuss the combat. I never saw such a desperate fight in my life."

"How do bees distinguish their fellow hivers from outsiders?"

"Solely by scent. They can tell a stranger by the smell just as you tell a German by his grunt, or a Frenchman by his nasals. If a strange bee enters a hive full of honey he is always welcomed. If he comes empty they take him for a robber and keep him out. This is something like the world ain't it?"

"Are you going to give bee raising an extended trial?"

"Yes, Sir. I now have thirty-five hives at my farm, about twenty-five here and about forty more besides. It is astonishing how much honey they made in 1872. I sold bushel upon bushel of it. Next year I expect to have 100 hives at my farm, and shall clear \$2,500 on them. You can never glut the market with good honey. If I make \$2,000 or \$3,000 from my 200 hives next year, I shall increase my apiary. This, however, will be three

miles from my present apiary. It is not well to have more than 200 hives at one point. It forces the bees to fly too far for honey. A bee never should travel over two miles, all things considered. The Rocky Mountain bee plant, the Melilot clover, and orange are good. The Buckwheat is very unreliable."

"Are bees always docile and easily handled?"

"Not at all! In the fall and winter they are docile, but in the summer when they are full of honey they are vicious. I advise every one to wear a veil and gloves when among the bees."

"What is the biggest yield you ever knew one hive to give in one year?"

"Well, these books publish enormous yields, running way up into the incredible. The biggest I ever knew of myself was 212 pounds. That paid \$45, on an investment of \$2.10. Pretty good wern't it?"

"You are not certain of making twenty-five hundred dollars on your hives, are you?"

"Not absolutely. Though it is the surest crop we have, it sometimes fails. For instance, last year it was almost a failure. A wet spring like that keeps the petals of the flowers filled with water and the bees can't get at the honey. Still I am very confident of my wholesale experiment next year. It has paid superbly so far. Four acres of white clover will feed two hundred hives plentifully."

"Is white clover the best bee plant?"

"I think it is. The owners of apiaries are now busy making experiments to find a plant which will answer all purposes. The mignonette is the richest and most agreeable to the bees, but it is hard to raise it in quantity. I consider white clover the most reliable."

Now this conversation with this practical old gentleman, who always makes money out of a thing himself before he commends it to others, opens a field of infinite suggestion to the Southern farmer.

Why can't we all have bees? Why don't every farmer's wife in the State make her husband buy her a swarm of those splendid little slaves?

When they do, we will have taken another step towards the greatness we are destined to.

For, as little as it may be believed, there is no power in all the land that will enrich all people so much, as to encourage the coming of this superb, brown-coated fellow, who works for nothing and feeds himself.

The government of a hive of bees has long excited admiration. Their extreme simplicity has astonished man, yet many pronounce all their workings to be instinct alone.

When examining our bees great care should be taken in exposing the brood to open air. The temperature should be mild, that the brood be not chilled.

Seeding Queens through the Mails.

For several years past I have received, and sent through the post office, small packages of bees. Of those received by methey were in good order and condition, and of those sent off the universal reply was, "they arrived all right and lively," "packages sound, etc., etc."

For five years back, I lost but one queen through the mails, and that on account of a cold snap. The bees became chilled, but their dying did not injure other mail matter. That is not the point I wish to make however, it is this; shall those who take pains, and who knows how to prepare bees for mailing, be denied the privilege of the post office, because a set of bungling, clumsy would be bee-raisers have sent through the mails their packages, daubing and besmearing every article they come in contact with.

I offered a package containing an Italian queen, and about one dozen worker bees to the postmaster at this place, and he refused to receive them, stating they were not mailable matter.

He promised to correspond with the Department at Washington, and on yesterday hand me a copy of his letter, and the postal card containing the reply to-wit:

"Would it be right and proper for me to receive and forward bees in the mails? There is a patron of this office, who is a bee-raiser, and prepares his packages well for mailing. It is his impression that there is a late ruling to the effect that when packages of bees are done up so as not to injure the mails, they can be mailed. I don't remember of seeing any such ruling."

G. J. BOOKER, Postmaster.

The postal card containing the answer, had but one word, and it of only two letters: "No."

I will state in this connection that I always paid full letter postage on my packages of bees, but know of postmasters at other places receiving and forwarding them at the rate seeds and plants are sent through the mails. I doubt if the Department has fully investigated this subject. If the postmaster general or any of his assistants, wish to give the matter any further hearing, and will authorize the postmaster at this place to receive a package, I will send him one, the same I have been mailing in, and he will then be more competent to judge whether they are likely to injure other matter in the mail.

W. P. HENDERSON.

Murfreesboro, Tenn.

THE production of honey is the most remunerative product of the bee. This being the case every bee-keeper should try and manage the apiary in that manner that will give him the greatest returns from them. These results can be reached with great certainty by proper care.

WHEN young swarms are first hived, and they are building brood comb, they should be noticed at short intervals, to see if they are making their combs straight. Should they be found to deviate, take a long knife with a broad blade, and press the comb to its proper place, and they will soon make them straight.

Drone Bees.

I have been examining the honey producing plants this spring and I find nothing worthy of notice except the poplar, which has opened out, and on examination, there is what we people in North Mississippi call honey dew on them. It is a substance somewhat like honey smeared over the upper side of the leaves of these trees. The leaves look glossy and will stick to the hand. Once, some years since, the honey dew was so plentiful in spots in the bottom lands near here, that in walking through the cane it would smear your clothes. I noticed that year that bees did well. I had a few box hives, one of which I noticed more particularly than the rest. It cast three swarms, and the first one of the new swarms cast four, making an increase of seven from one. I thought they were doing wonders. But if I say anything about the drone layer, I had better quit telling such tales. You seem to think it was a fertile worker that laid those eggs. So did I at first, but on examination I find a female drone, to express myself that way. Somebody will ask Baker to prove the above assertion. I will not promise to prove any such thing, but will give a plain statement of facts, and let every man draw their own conclusion, if they want one. As I have already stated, I exchanged combs with a hive and gave them young brood and eggs. I examined again and found as before, eggs in the drone comb only. I gave them the second frame and then we (my wife and I) killed all the drones we could, and especially the imperfect drones, believing that it was one of them that did the mischief. Since then there has been no eggs layed, and yet there is plenty of room and plenty of bees, as I have replenished the hive with bees by moving a strong colony and putting the hive where the strong one stood. Alsike clover looks fine, and has been in bloom for a month. My bees have filled the hive in the brood chamber with honey, and I have no extractor

Rearing Prolific Queens.

We use the Langstroth hive, double story—the second story is movable and having a honey board between. Frames or boxes can be used in the second story. Ten frames below, eleven above.

About the middle of February two stocks are selected, one of which to raise queens, the other drones. We stimulate by feeding diluted honey to each uncapping once a week a frame of sealed honey, and give brood from other hives. In the hive intended for drones we place between the brood combs two frames in different places, of drone comb, and remove the honey board, placing in the upper story plenty of honey in frames.

When the hive intended for queens has brood in as many as eight frames, we remove the honey board and give the upper story eleven frames, six with honey, and five with brood, the brood in the center. Keep the hive protected by old carpets and boards, that the interior may be little effected by the outer atmosphere. When the hive gets full of bees, above and below, which will be about the 10th of April, we remove the top frames, put on the honey board and brush all the bees off into the lower story. See before you do this that there is plenty of honey in the lower department, not less than 15 or 20 pounds. The hive will be so crowded with bees, they will forthwith prepare to swarm, and if the weather is favorable and they are gathering honey it will not be more than a week or ten days before they do swarm out. When they do we remove the queen and return the bees. They still being crowded the first queen emerging from her cell will out with a swarm when we break up the hive into nuclei, and remove queen cells to other hives. We have had as many as a half a dozen queens to cut out while dividing up, and have introduced them into hives containing queens we did not prize, removing the reigning queen.

We call this the natural way. They will be hardy and prolific, and for numbers, when every thing is right, will surprise those who never tried it. We

have had twenty-one cells on one frame alone, but many of them were twins and could not be divided. If Italian queens were all raised in that way we would hear less of their being no better or inferior to the native black or brown bee.

We would produce a very poor native black queen bee, by giving to a few dozen black bees eggs on a small peice of comb and place in a cigar box with but little honey.

H.

Murfreesboro Tenn

PRESERVE all the fine brood combs. Comb is the honey bee's furniture: though like many other things that is perishable, will endure a longer, or shorter, period just in proportion to the care given it. We have known brood comb that were in constant use for twenty years, and to all appearance the bees were as large and as fine as any we ever saw. The hive threw off a swarm every season but one in twenty-one years, and several seasons it gave two swarms.

New swarms should not be admitted to their boxes until some five or six days unless the swarm is very large, and then not until the bees commence working below. When a large swarm is hived they will go to the top of the hive before they stop, and the queen may go to the boxes, if so she will commence to deposit her eggs there. Bees in old hives should be admitted to the boxes as soon as strong enough to be crowded for room.

Sketches from Tennessee.

In present sketches I purpose to notice an error or two connected with bee culture, which I think might be calculated to mislead the beginner, and will commence with

TRANSFERRING.

The authors in works on bee culture and correspondents to bee journals too,

generally advise those having combs to transfer from the box hive to movable frame hives, to place the combs in the same position they occupied in the old hive, which is generally correct, and one goes so far as to say that when it is set in sideways it would give the bees a great deal of trouble to remove, as they would cut it all out.

Now, Mr. Editor, I have been transferring for a few years, and my practice has been to place the combs, when convenient in the same position they formerly occupied, and when more convenient I turn them half down, and, have never had any bad results from so doing. The bees occupy them as readily as if placed upright as before. I have also reversed the combs entirely and that without any drawback whatever discernable.

DRONES FROM WORKERS.

Another error which has been advanced is that all drones are the offspring of workers. If such persons as think this is so, will get an observing hive and take a little trouble in watching the movements of these insects they will not only find this an error, but will find many things else connected with the wonderful workings of the inner hive that they cannot conveniently without.

Closely allied to errors is the subject of gross and willful

IGNORANCE IN BEE CULTURE.

I say willful because there are some who refuse to read that they may be informed, and close their ears to reason least they be convinced there is another path to bee culture, outside the one their fathers trod.

A few weeks since I made a trip in an adjoining county for the purpose of purchasing bees, and found several "ancient" bee-keepers, one among which was more noted for his sarcastic denunciation of the present advances made in the science of apiculture and of the light which has been shed on the subject. As we could make no purchase we gave him up to his idols, and left meditating upon the subject heading this paragraph. I gathered the following from another one of the ancient

wise acres; that there is a king and a queen in every hive to perpetuate the royal family; that there are male and female drones to perpetuate the drone family, and that the cross between the king and female drones produce the workers, or mule bees as he call them.

What a change might be wrought if such could be induced to subscribe for and read the journals and work on apiculture. But one had almost as well try to guide the sun's chariot, as try to influence such to read and inform themselves in bee lore.

CORRECTION.

On page 179, May number, 6th line from the bottom of last column, in speaking of Mr. Langstroth receiving a fee for the right to use his hive, your printer makes me say "which is justly his need." Should read "which was justly his meed," for I wish to convey the idea that it was his right and not his necessity for which he received the fee.

S. D. McLEAN.

Culleoka, Murray Co. nty. Tennessee.

With the movable comb frame all hives or swarms can be kept strong both with honey and brood, and this equalizing should be made both in the spring and fall. When made in the spring it places the bees nearly on a footing with each other, except it may be that one swarm may have a more prolific queen than an other. Equalizing in the fall prepares them to enter the long cold winter alike.

THE existence and welfare of the honey bee, depends mostly on the earth's yielding her sweets, in their appointed season. In fact the increase and decrease of every race and class of the animal and insect kingdom are governed by the same great law. Hence we find the bee to increase and flourish best where the earth yields the greatest profusion of flowers through every month in the year.

A Victim of Misplaced Confidence.

You having invited correspondence and experience of bee-keepers South, I will give in mine, or a portion that happened in 1870, and while it may amuse and discourage some of you who knew more than I did, I hope it will not keep others, who are still sticking to the old box gums from accepting some simple and improved movable frame hive.

In looking over the communications of the WORLD, some of them I guess to be from young bee-keepers, and they remind me of some new religious converts, who, having just had their eyes opened, begin to preach and teach as though they had it all, and knew all about it, and that those old fellows setting in the amen-corners, were in the dark and back ground, and needed spurring up. So they snatch up their pens, and go to write about a subject which have engrossed their whole time and attention for three long months, and just to "please the children," you give them a place in your paper. Well, when they see their names in print, they think they have done wonders, and have besides enlightened the old fogies, and immortalized themselves. But what does these old amen corner bee-men think? I will tell you what they think. If you are not too conceited, and are willing to learn, by the time the "wire edge" wears off, and you continue to keep bees, and will examine the old masters, you'll just begin to find out, you know very little worth writing about. But don't let this discourage you, we love to see your wordy letters. Wild salad, when garden greens are scarce helps mighty well to fill up.

I started to write about what happened to me in the spring of 1870, and got off the track, so I will commence new to tell you that the patent right bee-hive man then paid me a visit, and shades of Patrick Henry. You ought to have heard his eloquent tongue, as he opened his honey-flowing, moth-proof, bee-preserving, and unequalled buckeye hive, and explained as he exhibited the different parts. He

told how "the man who invented it had made it a life study, had spent a fortune and grown poor, and wore all the hair off the top of his head studying it out, and it is now complete and unique, and he was offering it to a waiting public," and I don't now recollect all he did say about it. I think he said if bees and their multiplication was your object you could make a hundred swarms from one, and if you wanted honey all you had to do was to cut it out every morning, and just keep them storing all the time.

I wanted some improved hive, but I was not satisfied, for I knew nothing about them that this was the one. The pedlar saw I was rather dubious as to the merits of his hive, and he said to me if I was afraid the hive was not every thing he represented, he would transfer a swarm of my bees into one and leave it with me, and after a fair trial, if I was not pleased he would then buy my bees, and no harm would be done. That seemed fair enough, and led me to suppose it was a fair trick, or he believed it to be. I pointed out the weakest and smallest gum for him to operate upon, and the way he handled them, showed he'd been about bees before.

He exhibited the queen bee, the first I had ever seen, and lectured upon the superabundance of drone comb in the hive, the age of bees, different qualities of honey, etc., and I began to feel a right smart kinder towards him and invited him to stay over for dinner.

For several Sundays I was kept busy showing the curious of the neighborhood how the new hive operated, and finding the queen bee and looking at newly deposited eggs, and from the number of visitors I was having, I began to think myself about as important an individual as Esq. Smithson, when he got back from the legislature.

In about a month up turned the patent hive pedlar man, and being out in the field at work, he first met my wife. She told him I was perfectly delighted with the new hive, and I was talking about putting all my bees into that kind, and her brother was there a few days ago, and he said he wouldn't

mind keeping bees if he had that kind of a hive, that he could open every day and see the bees working, &c., &c.

She was just telling him what I did not want him to know, and I have often thought since that "women in general talked too much with thir mouth." He knew I was his meat. To say I was delighted with the hive but faintly expressed it. I was determined to have it.

They were hav'n'r he said 10,000 made at some manufactory, and they could then sell them che p'r than he was now offering. I paid him \$15 for the one I then had, and a right to use and make, and \$10 for another one he had along, \$25 in all, and I tell you I felt about as proud as I did when I went out a few mornings before that and found two mule colts sucking the old mare.

He dined with me again, and I invited him to call often, which he promised to do, but I never saw 'im again.

In a few days my bees swarmed; in fact two hives swarmed at the same time and pitched together. It was a powerful big bunch of bees. I hived them in my empty Buckeye, and when they quit going in, it just then began to occur to me the thing did not have room enough, for it was full inside and out. It being a very busy time in the crop, I gave 'em but little attention until about the last of June. The sun and rain together warped my hives, they being made of very thin material, until the top curled up like a piece of hickory bark, and the sides appeared like a yoke of badly brake steers, on a hot day pulling against each other. They were never painted but only stained.

I was very anxious to see the interior of the hive containing the double swarm, and accordingly one day proceeded to look into it. Well you have heard of Al'cock's porours plaster, and know something of the sticking qualities of Spauldings glue and Diamond cement. All of these articles weren't a circumstance sticking and holding fast. I pried, and pulled, and jerked, but it was no go. Them insides were there. Did you ever try to pull a ground hog

out of a hole that was a pretty tight fitting one.

I was mad, fretted, and my irish was getting considerably up, when Pompey my colored hireling, wh' was about as stout as a gorilla, in his arms and from general appearance, not many removes from that animal, approached and desired to assist me. The hive was situated on a bench about three feet high. I told Pompey to pull the insides out of that hive. He paced his left foot against the outer case and pulled with both hands, he grasped the right and and left of the inside chambe., and gave a pull by way of trying his strength and then with all his might he brought a jerk and out it came with a crash. Pompey lost his balance and back he fell, holding on to the inside frame. The jar in the fall covered him with bees. In about two hours afterwards you ought to have seen Pompey. He was a sight to behold. His lips which before being stung were large, now curling out, like ripe balsam cucumbers and his eyes stuck way back in the flesh, like the blossom end of these water-core apples. That Buckeye has been apart ever since, and for many months furnished the children with chewing gum. SHERENDON.

We are asked do bees when conquered, help carry the honey off? We answer yes. We have known them frequently when they were conquered to swarm out and go in with the swarm that had but a few minutes before vanquished them, and then all would turn in and the work would soon be accomplished.

We advise any one, having a few swarms of bees, to procure a honey extractor. It will pay you in a short time, and in so doing you save all the comb, which is so desirable to the success of the bees. With a good extractor we can take double the honey, if not more from any hive, than we otherwise would if we resorted to the old practice.

The Honey Bee.

Of the multitudinous classes of insects within the range of our knowledge, no one is so important to our interests as the honey bee. Probably no other class gathers as much of the honey produced in our forests, fields, orchards and gardens, or performs as important a part in the rendering fruitful of various products as this class. A knowledge of their instincts and habits is therefore very desirable, that we may avail ourselves of their skill and industry, by saving the honey they store, in the greatest amounts, and in the best possible shape for market or use.

In pursuit of this object several facts deserve our attention.

1. It is necessary that the colonies of bees themselves should be sustained through the whole year from the fruits of their own labor. If they starve to death the first year, there of course is an end of profits.

2. It is necessary that a sufficient number of laborers should be employed in one colony to store in a season, in addition to a winter's supply a satisfactory amount of surplus. No beekeeper should be satisfied with less than one-half of the products of his field in surplus. Two-thirds of it would be more satisfactory.

3. It is known that the instincts of the honey bee lead to an increase by the issue of from one to four swarms every year, and that the greatest amount of the best honey, is secured from the flowers of the early season. Hence most of the workers who gather the honey in the old colony, and the after swarms, and all the workers of the first swarm that issued, are the products of the old queen.

4. Begin with one colony and at one swarm from each colony annually, in five years there would be 32 colonies. At two swarms annually, 243 " At three swarms annually, 1025 " At four swarms annually, 3125 "

5. It is necessary that the number of colonies should be limited to the capacity of the field. If it exceeds the number the field will support, the keeper

will secure little or no honey, and the bees must be fed or a portion of them will starve to death. If the number greatly exceeds the means of support, sometimes all of them perish. In consequence of such results many become disgusted with, and heart sick of the business, and give it up entirely. This result is to be regretted.

6. Farmers, with from two or three to nine or ten colonies of bees according to the extent and capacity of their fields, might secure from 200 to 1000 pounds of surplus annually, and the outlay for the whole not exceed from \$30.00 to \$100.00, a little more or less according to the expense of the hive.

7. About hives, two or three things are necessary to the success named.

First. There should be ample room in the central part of the hive for breeding and winter stores.

Second. There should be surplus boxes upon the top or insides, or both in close connection with the breeding apartment with every free communication between them, giving room for 100 pounds of surplus.

The hive that secures these objects the most perfectly at the least expense, is the best hive for the farmer to use. The breeding apartment may have either bars or movable frames as the keeper may prefer. For raising queens and procuring honey from the comb by the extractor, movable frames are a necessity. For procuring surplus honey in boxes, hives with bars are as good as with movable comb frames. And where they will not be moved or handled once in a year, bars are to be preferred. I have used both in my experiments in the business, and my best colony that I ever had giving me in four different seasons 100, 140, 145 and 200 pounds, had only bars, and surplus honey boxes upon the sides and top—585 pounds almost all white honey in four years, with no trouble but simply placing on the surplus boxes and removing them when filled was but little trouble and expense. I have transferred bees from one hive to an empty hive. One way by moving the comb and placing it in the frames, and placing it upon the stand. The other

I removed the hive from its stand and placed the empty one on the stand. Broke up the old hive where the bees would go right to the empty hive on the old stand. Then took all the brood comb containing either brood or eggs, placed it in a box and set it upon its side by the entrance to the hive, and the bees fed and secured their whole working force. I think the last did rather better than the first. Their combs was placed by them in rather better shape in the hive, than I placed it on the other hive, and less of the brood was lost.

I have now simply given a few propositions and stated a few facts to encourage farmers to whom the fields belongs to secure this portion of the products of their fields as well as other products. If I succeed in this object, I shall be gratified in the result.

I have no doubt that honey might be secured by the farmers in such manner and amount as to make it remunerative to them, and rendering this delicious sweet one of the cheapest and most abundant sweets in market.

JASPER HAZEN.

Woodstock Vermont.

New beginners should begin on a prudent scale. That is begin with a few swarms. You can increase and enlarge your operations as your experience increases. Many have embarked in apiculture, commencing on a large scale with but little or no experience, and, the result was a failure. They were not competent to manage and carry out what they had undertaken. Commence right and go ahead and success is yours.

Best Time of Year to Ship Bees.

When the weather is warm and the comb full of young brood, it is much stronger, and with proper ventilation can be shipped with perfect safety. A colony of bees, to be properly prepared for shipment, ought to have a young queen, plenty of sealed brood, a few working bees, and enough honey in the

combs to do them while on their journey, and shipped at a time when honey is abundant in the fields at the place of their destination. A colony prepared in this way, and shipped at this time of the year, in a very few days after they arrive will hatch out a large swarm from the brood, and the young queen, being healthy and prolific, is capable of and will lay an egg in each cell as fast as they hatch. It is variously estimated that the queen will lay from two to four thousand eggs every twenty-four hours, and these eggs will hatch in twenty-one days, and to the surprise of the purchaser he will very soon get a strong colony of bees; and if honey remains abundant in the fields, his colony have in a few weeks from thirty to perhaps one hundred pounds of surplus honey, if he has given them sufficient room, if not, they swarm, and he will find on examination that they have an abundance of honey for their winter supply, and have more than paid their purchaser in rich honey for the money expended for them.

A strong colony of bees is capable of gathering a large amount of honey in a very short time, where honey is abundant in the fields. For, in many places in the states, bees gather all their surplus honey from the linden, and this never lasts to exceed two weeks; and they have been known to gather more than 100 pounds of surplus honey in that time in Texas, and when the extractor has been used, as high as 300 or 400 pounds have been taken from one colony.—Colorado Farmer.

If you want to handle bees without being stung handle them gently. Don't jar the hive, if you don't want to beat a hasty retreat. It is wonderful to see what control the apiarian will have over them when properly managed. Bees when gorged with honey are very peaceable. When often handled they become used to it, so much so, if gently handled they will hardly notice you. If roughly handled, you will notice them.

Chips from Sweet Home.

Thinking that a few chips from Sweet Home would be welcome, I have gathered a basket full.

We have left thirty-eight out of ninety-five hives, two of which were queenless, which we put with others, leaving us thirty-six hives to begin with, and comb enough to fill one hundred more. About one-third of them were strong, one-third weak and one-third average. Cause of mortality (as we think) dysentery, caused by confinement and bad honey. They are doing finely, shall increase artificially, as given by A. F. Moon, on page 45 of his "forty years experience with bees."

We have our observing hive near at hand, in our parlor, they have three queen cells now capped, and soon we shall see them cut forth and one of the three killed, the others while in the cells, or, as we once witnessed, in mortal combat. In this hive all the workings of the once mysterious hive can be seen by sun-light or lamps, as they work all hours of day and night.

In this spring made Dadant & Son, of Hamilton, Ills., a visit and was much edified. They use the black boards, being a piece of board about 3x4 inches, with number of hive on one side and liquid slating on the other, on which they write the condition of the hive with a slate pencil. Observing which, and liking the plan much better than keeping a register, I purchased eight slates for 70 cents, which I cut in sixty-four pieces of 2½x3 inches, and bored a hole in one end so as to hang on nails. On one side I put the number of the hive, and on the opposite or on the inside I wrote the condition of the hive, in as abbreviated a manner as possible. Winds nor rains affected the writing. When I make new swarms or change the location of a hive and don't want the bees to return I do as per Dadant, lean a board against the entrance. The bees when coming out discover something wrong and mark the new location, otherwise they would have rushed off as usual without noticing the change.

Sweet Home bee-grove at present,

consists of small oaks, which make a good shade, but grow too tall. I will set out next spring cherry trees ten feet each way. (They make a low shade, and are valuable for honey and fruit) and cut out the oak as the cherry grows. Places differ very much in pollen and bee bread. We are unable to feed meal more than 2 or 3 days before our bees gather bee bread, but we stimulate by taking jars and filling with sugar syrup or diluted honey. These we cover with muslin and tie, then invert under a light trough, like a pig trough. This we do when honey is not plenty. We have an abundance of lynn, white clover, orchard and Mississippi bottom flowers. The only slack time of a good year, is about two weeks in July, when we feed for stimulating. We place it about ten rods away from apiary to prevent robbing. D. D. PALMER.

Elza Merce County, Ills., May 26th 1874.

A Few conclusions.

In my previous communication I stated a few facts relative to the honey bee; it may be proper to draw from them a few conclusions, by way of improvement.

1. If a colony of bees, the product of one queen, is, by swarming, divided into two, three, four or five colonies, and must provide winter stores for two, three, four or five colonies instead of one colony, we conclude almost the whole product will be consumed by the gatherers and the keeper secures at most but a trifle. In preparation for swarming, two weeks or more were lost in idleness. The old colony was so reduced by the issue of first and after swarms as to store very little or no surplus. The after swarms could only at best supply the brood and prepare for winter, and perhaps require some feeding to do that. The first swarm is the only colony from which we may expect surplus. By the time they have filled their hive and gathered a winter store they must have put forth all their energies with but very little surplus. The keeper gets little but bees.

2. In my conclusions I should soon reach the point where a large part of my colonies would perish. At an in-

crease of one swarm from each old stock annually, in six years they would amount to sixty-four stocks. At two swarms from each in four years they would amount to eighty-one swarms. At three new swarms annually in three years they would amount to sixty-four swarms. And at four swarms annually in three years they would amount to one hundred and twenty-five colonies.

3. We are unable to estimate results with certainty. I have kept bees in several different fields, but never in one where thirty colonies could be kept, and safely guaranteed against starvation. But different fields vary materially in the amount of honey-yielding flowers; and the same fields differ materially in different seasons. We must seek to reach the right force needed by careful estimates and experiment. Be careful not to exceed the proper amount; better fall short of than to exceed it.

4. Use proper measures to control the swarming by removing the disposition to swarm. I have never known a colony of bees to issue from a hive or send out a swarm, unless there was a crowded hive; exposure to heat; the presence of enemies; or destitution of food. To this perhaps I should add the issue of after swarms to prevent the destruction of queens. I think, then, that natural swarming may be entirely under the control of the bee-keeper. Give ample room before the disposition exists; guard effectively from heat by shade and requisite ventilation; and remove moths, mice, ants and other enemies from the hive, and give such ventilation as shall guard against stifling heat, and I believe bees will not swarm. Mr. Quinby supposes that there is no certain security against swarming save a hive in a dark room; and they have sometimes been known to swarm even there. I have been in a chamber so heated and close, that I should suppose it as bad, and even worse than to stand in the sun, and I don't know why it would not be more heated than a hive in the shade of a tree, with free circulation of air around it.

5. I conclude that save all the time lost to the colony by idleness while preparing to swarm, retain all the force constituting the first swarm and after-swarms in the old hive and there will be a probability that you will secure from two hundred to two hundred and fifty pounds of surplus from the one hive.

6. But I would not be understood to suppose that in a field where thirty colonies of swarmer hives would starve, or even but just live through the winter, you could put in thirty colonies in non-swarmer hives and get two hundred pounds of surplus to each swarm. The question is, whether it is best to put in ten non-swarmer and get twelve hundred or fifteen hundred pounds surplus, or put in thirty swarmer, have them give thirty new swarms and no surplus, and have them all starve to death next winter. I suppose twelve or fifteen hundred pounds of surplus is better than nothing. That to take care of ten hives that will give no trouble about swarming is much less perplexing than to take charge of twenty hives, watch and have twenty swarms, to die the next winter; giving me my trouble for my pains. Those who judge differently must act accordingly. I send you a circular giving a plan of my hive, and will send one to any one who will send me their address, and a piece of fractional currency to pay me for the trouble.

JASPER HAZEN.

Woodstock, Vt., May 28.

Is it cold weather that kills the bees? This question is often asked, we will try and answer it. Weak swarms may suffer from cold weather, but no good swarm with plenty of bees and good honey, ever die that way. Where their breath is allowed to pass off, and they keep dry we have wintered them when the mercury has stood 30 degrees below zero, and scarcely a bee would die. Keep them dry and no cold weather will kill a good swarm of bees.

Notes and Queries.

Bees are doing well here. Heard of one natural swarm last week. H. NESBIT.

Cynthiana, Ky., May 20.

Bees, at present, are having a gay time, fruit trees being in bloom, and tens of thousands of dandelions for them to gather pollen from. Most hives filled with bees and brood, and gathering honey fast. Intend to make new stocks to-morrow if the weather is fair. Bees are starting queen cells and have hundreds of drones out, which is favorable for making new swarms. Frequent showers keep the flowers in splendid condition for the bees, and they are not loth to improve it. We anticipate a good season for the little pets.

Yours Truly,

W. M. KELLOGG.

Oneida, Ill., May 24.

Do Italian bees swarm in the ordinary way, or do you transfer colonies when ready? A. B. COULTER.

Bronson, Fla., May 22.

The Italians are more prolific than the native bee and are therefore more apt to swarm. We think it preferable to divide our swarms, directions for which are given in this column in answer to J. H. A. If you have but one swarm and wish to divide that, take one half of its frames for the new colony, put in empty ones in their place.

I have one very strong colony that I bought in an old box hive with a surplus box on top. The bees filled the box sometime since and stopped work. I took the box off, thinking I would make them swarm; but it failed to produce the desired effect. The bees still lay around the hive. I watched them for a week or ten days and then gave them a new surplus honey box, when they went to work, and at present there is no sign of swarming. I desired very much to increase my stock; Did I do right or wrong? What effect would it have to remove the box; and would it cause them to swarm?

J. S. DAVIS.

Cave Springs, Ga., May 27.

We think that their disinclination to swarm is the result of the dry weather, which has reduced the honey crop to that extent that they hesitate to leave the parent hive. As soon as rains come they will swarm, we think. Leave the surplus box on.

Will you give me some of the prominent features of the superiority of the Italian bee over the black as honey gatherers; and some of the leading reasons for introducing them. It is stated here by a man named Earl who hails from Covington, Ky., that the Thom-

as hive and the Italian bee are humbugs. That the Italian is not a honey producing bee, but a bee that has to be nursed and put up in little colonies. That common people can do nothing with them, and that only men of science can do anything with them. That in Kentucky they have ignored them, etc.

A. B. COULTER.

Bronson, Fla., May 28.

We can give you a few of the many advantages of the Italian over the black bee, according to investigations made by practical bee-keepers. They can gather honey from plants that the black bee can not. Through this superiority they can lay up much larger stores, and through their greater strength they are better able to protect them. They are more docile, are less liable to sting when handled, and are more prolific and longer lived. Why you should pit one man's statement against that of the thousands of bee-keepers who have tried them, we can not conceive. That any portion of Kentucky has discarded them we do not believe. Of the Thomas hive you must be your own judge.

1. Do you consider it a better plan to divide your bees artificially or to let them swarm naturally.

2. What do you consider the best way to divide bees.

3. What is the best position to place a swarm of bees in, with relation to the points of the compass.

4. What plan do you adopt in transferring bees from the common box hive to a frame hive.

5. When does the National Bee-keeper's Convention assemble again.

J. H. ALEXANDER.

Rome, Ga., May 26.

1. We do consider it by far the best plan to swarm our bees artificially. Natural swarming is attended with much valuable time in watching, and then perhaps they fail to swarm. In making the artificial swarm preparations should be made beforehand, that a queen, or one about ready to hatch can be had, so that they may have a laying queen at once. Should the swarm have to raise their own queen from the egg, it would take from fifteen to sixteen days. From the larvæ that has been nursed as worker

larvæ five or six days they can hatch a queen on the ninth or tenth day. It takes, as a general rule, from five to ten days before the queen commences to lay. The first few days she lays but few eggs, being for workers, and hatch about the twentieth or twenty-first day. Here you will see that nearly forty days of the season, and perhaps the best part of it, has passed before the swarm receives any benefit from the new queen. Hence the propriety of having queens ready to give to all newly made swarms.

2. The best and most successful plan we ever practiced was to take an empty hive having frames the same size as those in the hive to be divided. From the center of a strong hive we take out two frames of brood, being careful not to get the queen, and put in our empty hive, putting the empty frames in their place. We then take one or two frames from other hives, as they can spare them, until the hive is filled. You must now introduce a queen into your new swarm, which is easiest done at sunset. It will be but a short time before you can commence dividing from your new swarm.

3. The best position we can find to give our bees, is to place them where the morning sun will shine on them, and they should be shaded in the middle of the day.

4. The following plan we have tried for thirty years. The tools to be used are a small, thin shoe knife, a long, thin druggist's knife, a hammer, cold chisel, small saw, and two sheet iron dishes, one fourteen inches long, three inches deep, three inches wide at the

bottom, and four at the top. This dish we use for the wax, which is made as follows: one part beeswax and three of rosin. The other dish is used to put fire in, it is of the same size and has two wires across it and one inch from the top, to set the one containing the wax on. Select your hive to transfer, administer smoke enough to conquer them, which they will show by a loud, roaring noise, take them to a shady place where you have a table prepared. Place the hive bottom up on the table, cut the combs loose from the sides, and with the cold chisel cut the nails. Take off two sides, cut out the combs, brush off any bees that adhere to them with a quill, laying the combs on a board. By the time the combs are taken out the bees will have retreated to the sides of the hive yet standing. As soon as our combs are all cut we have our wax ready. Be sure it is not too hot, as it will scorch the combs. Place all the brood as near as possible in the same position they occupied in the old hive, with the same end down. Now dip the edges of the comb in the melted wax and place quickly in the frame. In competing for the premium offered by the executive committee of the State agricultural fair of Georgia, for the best method of transferring from the old box hive to frame hive, which was granted to us, our wax was too hot, which caused a short delay, yet we performed the operation in twenty-seven minutes.

5. The National Bee-Keeper's Association will meet in Pittsburg, Pa., on the second Wednesday in November, 1874.

EDITOR'S TABLE.



It becomes our painful duty to announce the death of that universal friend among bee-keepers, Dr. T. B. Hamlin. His death will be a loss to the bee-keeping fraternity as well as to his fellow citizens; for in him were combined the many good qualities that go to make a man. We can pay no better tribute to his memory, perhaps, than that contained in the following letter, by his partner in business, Frank Benton, and in conclusion we will say, let us live a life that shall cause us to be missed when taken from this world as he will.

EDGEFIELD JUNCTION, TENN., }
May 28th, 1874. }

MR. A. F. MOON, Dear Sir;—It is my painful task to announce that the early career of our friend, and co-laborer in bee culture, Dr. T. B. Hamlin, closed last Sabbath morning. Though his last days were filled with suffering, the end was calm and seemed easy. His full Christian faith led him to look upward to the bright life that opened before him. Let us all believe that his untiring zeal in promulgating all that is useful and good, his uprightness of character, and his firm belief in Christianity, have won for him a crown of life everlasting in the realm of eternal day.

His interest in the apiarian depart-

ment continued through his illness, even to the last. Only a few hours before his death he asked me to tell him what had taken place in the apiary, and seemed gratified at the prosperity of his former pets.

In the rank of apiculture he will be missed. The results of his extensive experience and great interest were felt to be of value to bee culturists.

He was a man of indomitable energy and great activity. His mind being of a practical cast, he labored in a direction that produced evident results. Let there be some tribute to his memory from the bee-keepers of our land.

Very truly yours,

FRANK BENTON.

P. S.—It would be well I think to notice Dr. Hamlin's death in the *WORLD*, and an obituary would, I presume, be interesting to readers.

I shall continue the business of the apiarian department. Yours, etc.,

F. B.

BEE-KEEPERS write down your experience and send it in to publish for the benefit of others.

Show this paper to your friends and get them to join you in making up a club.

SUBSCRIBE and write for the *WORLD*. The only work devoted to bee-keeping in the South.

We are having frequent applications from friends concerning farms, whether there are any for sale in this vicinity, the price per acre, quality of soil, and improvements. Those having farms for sale would do well to advertise them in the *WORLD*.

Non-Flying Fertilization.

This question often comes to us, asking our opinion etc. We have always answered by letter, and consequently have seldom come in contact with its advocates. Many long and seemingly exhaustive articles have been written on the subject, and much valuable time and space has been occupied; and with what results. From practical bee-keepers, and from apiarians generally, we have been unable to elicit a single fact to prove this theory a success. While on the other hand many of our best apiarians condemn it as a humbug. People have offered large sums of money to have the thing proved practicable, and the adherents have invariably backed down, and refused to enter the ring and prove that it is a practicability instead of a thing of theory. This has also lead bee-keepers to pronounce it a humbug. Yet every bee-keeper must acknowledge that if it were practicable and could be sustained, it would prove one of the most valuable acquisitions to bee-culture ever brought out by the investigating mind. With what ease we could control and breed up a standard bee. Breeding bees would be as easy as breeding stock. But its advocates are silent, they do not care to advertise it any more, that secret remains a secret still; the once clamorous tongue is hushed, and we can only think that where blind enthusiasm and theory once reigned, cooler judgement and a desire to prove things has sway. We want bee-keeping simplified, make it so easy that the new beginner can report success from the start, instead of the many failures which some of them mention. The little (though great when compared with what we knew of the bee a few years ago), knowledge we have had of bee-

keeping has been the result of patient and careful investigation. These investigators do not write of what they have found for one year, but for almost a lifetime.

Mich. Bee-keeper's Association.

This association was convened at Kalamazoo on the 6th ult. From a perusal of its transactions we elicit but very little information that is new. Upward ventilation is gaining ground, there as well as elsewhere. New methods of wintering are advocated, and we think there is need of it. Of the stocks wintered out doors, one hundred and sixteen in all, about one in five died. Of those wintered in house or cellar, five hundred and ninety-four stocks, the mortality was less than one in three. Will some of our Northern bee-keepers account for this result, which is so much in favor of out door wintering? The adoption of a "Standard frame" seems to be as unattainable as ever, and it is destined to be talked to death, we fear, through over-anxiety on the part of the axgrinders. Space will not permit us to give the transactions in full, so we will only add that the Southern bee-keeper, having the advantage of little or no winters, longer summers, and more flowers, should surely compete with their fellow bee-keepers North, who are constantly suffering through long and cold winters, and late springs. The true Northern bee-keeper is a man who never gives up.

HEREAFTER the WORLD will be stopped promptly when the time for which it was paid for has expired. Our circulation is so large that we cannot carry so many numbers, notwithstanding we would like to do so.

ANY one sending us the names of ten good bee-keepers, who has not seen the *WORLD* will receive a superb engraving 14x17 free by return mail.

WE want every practical bee-keeper to write for the *WORLD*. You can be of incalculable benefit to new beginners. Send in by the first of the month.

WE have made up a large and advantageous club list, which we will publish in our next. It includes some twenty-five of our leading agricultural and political weeklies, and literary magazines.

BUCKWHEAT.—This plant should be sown at intervals through the season, thus affording the bees a succession of flowers continually. The climatic influences operate heavy upon this plant, but by sowing it at intervals we are very apt to receive a great benefit from some of it. Buckwheat late in the season often furnishes a large amount of honey.

THE call for our bee book, entitled "Personal Recollections," has been so great, that we are now re-writing it, adapting it to the wants of bee-keeping in the South. Observation has taught us that there is a great difference in the management of bee-keeping South and North, consequently we need instructions adapted to our wants, which wants we will try to meet.

THE queen bee is often lost, and the swarm ruined. This generally takes place with old swarms. The old queen leaves with the first swarm and they are left without a queen, except those in the embryo state. They generally hatch in from eight to ten days, and by this time all the eggs laid by the old queen

has passed so far into the larvæ state, that they cannot change them, which they usually do, when not over four to six days old. The queen is reared from the same kind of an egg that the workers are. A strange phenomena, nevertheless true. When swarms become queenless, the moth worms takes possession.

"His only friend," is a beautiful picture of a boy resting by the wayside, with one arm clasped around his companion, a large newfoundland dog. One's heart goes out in sympathy to the poor stranger, who is represented as in a foreign land, and the picture is a favorite with all who see it. Size 12x16 inches. The *BEE WORLD* will be sent six months with chromo for \$1.50.

CHROMOS, CHROMOS.

WE will present every subscriber to the *BEE WORLD* a magnificent chromo. After considerable trouble we have succeeded in procuring a large supply of chromos, exact imitations of the original oil paintings, which has never before been offered to the public. Orders will be filled in rotation as fast as sent in.

SOME of our reports say the earliest mention of bees in this country, is that of George Pelton, of Virginia, who kept them in the year 1648, being upwards of 226 years since. Bees were also noticed by Beverly, as being common in that colony previous to the year 1720, and according to Uloa, bees were carried from Florida to Cuba by the Spaniards in 1754. The first mention of the honey bee in history, was about 3000 years ago. Since that time they have spread over the most of the habitable globe.

From a critic one would expect perfection; yet the last number of *Gleanings in Bee Culture* is so poorly printed that it is scarcely readable. Mr. Root is a self-appointed critic over other Journals, and in the midst of his generous task he issues a sheet so muddled and be-daubed that it is not fit to rank with our other exchanges. The fault of bad grammar is sometimes irreparable, that of poor printing, never.

We have a pure Italian queen which is very prolific indeed, but has not laid a drone egg this season. We raised drones from her last year as fine as any we ever saw. We have placed nice new drone comb in the centre of the hive to see if she would fill them. Not an egg is laid, but the workers fill the cells with honey. This is the third queen we have had that ceased laying drone eggs. The queen is four years old and was bred from an imported mother.

From the year 1820 to the year 1849, we exported 11,503,899 pounds of bees wax, and the amount of honey reported in the department of agriculture in the returns for the year 1850, was 14,853,790 pounds, and in 1860, it was 1,357,864 pounds of wax, and 25,028,991 pounds of honey, showing an increase of about 77 per cent. In 1860 we find that Iowa reported 88,731 swarms of bees, which gave 1,052,685 pounds of honey, and 40,762 pounds of wax, a nice income. Austria in 1857 produced 66,000,000 pounds of honey, and 6,600,000 pounds of wax, valued in the aggregate at \$7,000,000. The production of wax alone in Russia is estimated at 5,142,000 pounds.

BEE WORLD and Chromo, \$2 00 per annum.

RECEIVED.

QUINBY'S bee smoker for driving smoke among bees. It is novel, and useful as it throws smoke into every part of a hive.

TRANSACTIONS of the Georgia State Agricultural Society for 1873, from Malcolm Johnson, Secretary.

From Kruschke Bros. a few pounds of Rape seed. Any one sending cash for two subscriptions to the *WORLD* will receive one pound as premium.

From Jasper Hazen a circular entitled *Success in Bee-keeping*. Embodied in the circular are descriptions of his Eureka hive, which is well endorsed and looks practicable.

NEW ADVERTISEMENTS.

F. Benton continues the business of the late firm of Hamlin & Benton.

W. P. Henderson has queens and full colonies of Italians for sale.

A. J. Murray has queens, bees, hives, books, extractors, poultry, etc., etc., for sale.

Kruschke Bros. will send their pamphlet on rape culture to any address on receipt of stamp. This valuable plant can be sown any time in June; and blossoms in August. Rapp is sown in September and blossoms in May following.

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We are now prepared to execute with neatness and dispatch, all kinds of fancy job work, such as

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BEE KEEPERS

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Cards inserted in this Directory, and a copy of the WORLD, one year for twelve dollars—cards to be four lines or less. For each additional line one dollar will be charged. A line will average eight words.

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Fifty Pure Italian Queens

Which will be sent on receipt of price.

For one Queen in small shipping box 2 50

For one dozen Queens 25 00

For one Queen with about a pint of bees in nucleus hive, 4 frames 11x5 inches, each 5 00

Full colonies in Langstroth movable frame 12 50

Send money by P. O. Order or by Express.

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Buff Cochins,

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GLEN APIARIES.
500 HONEY EXTRACTORS.



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Italian Queens and Bees.



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Thirteen years experience in propagating. I shall breed direct from imported mothers, warranted pure and fertile. Those purchasing bees of me will get what they bargain for. Send for my circular.

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FULL COLONIES.



From the original imported stock of Dr. T. B. Hamlin, obtained from the best sources in Italy and Germany.

One tested queen in May \$8

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Untested queens reared from the same stock at lower price. A reduction will be made on large orders.

Purity and safe arrival of tested queens guaranteed. Full colonies at from \$14 to \$20. Send for circulars.

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The tub is stationary and only the frame, which holds the combs, making it easy to start and stop.

It holds 200 lbs. and can be emptied in the evening when flies and bees will not annoy us. It can not be sprung, jammed or bent as metal machines.

One or two combs of any size or weight can be emptied at any time without shaking the machine.

No time is lost in fastening the Combs

The wood is white oak and will not rust or sour.

It is run by a superior set of gearing. No liability of getting out of order.

IT IS EASY CLEANED.

It has a tight fitting cover, faucet and handle.

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October 2d, 1873. }

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Italian Queens, each, safe arrival and purity guaranteed.....\$5 00

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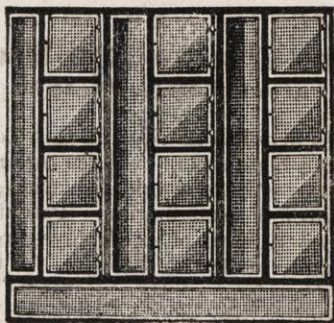
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Pure Colonies of Italian

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I am prepared to fill a limited number of orders for pure Italian Queens, and full Colonies. Can fill orders for young tested Queens from April 10th to October 1st.

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I have a few pair of light Brahmas at \$5,00, and a few extra Cocks yet to spare; one part Cochins, eight, months old \$5,00, White Leghorns \$3,00, and a few others.

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