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MOON'S BEE WORLD,

—A GUIDE TO—

BEE-KEEPERS.

VOLUME 2.

MAY, 1875.

NUMBER 6

CORRESPONDENCE.

NOTES FROM SOUTH CAROLINA

BY T. B. PARKER.

A. F. MOON:—Dear Sir: I see on page 96 of the *WORLD*, an article written by E. Knight, concerning the age of the honey bee; and states that he has known instances where bees have lived to be a year old, &c.

Now I do not doubt it, but that certainly cannot be taken for the length of the bee's life. I have seen it stated that the age to which a bee lives depends on the amount of work she does and that brood raising causes them to fail faster than anything else. If that be true, it accounts for the age of the bees referred to, from the fact they had no queen and consequently had no brood to rear or care for. I introduced an Italian queen last June and am positive that I have seen no black bees in that hive since September; they may have been there but I did

not see them. On page 115 some one signing Tennessee, wants to know if there is a black and brown bee of the South. I think there is, for I know a gentleman that has both, and says there is a difference in them; that the blacks are much smaller, better honey gatherers, and are much more disposed to sting, so much so that he rarely ever tries to "rob" them. I have seen them myself and know there is quite a difference in the looks of them. I don't think the time of year the queen was reared, the size of hive, nor quality of food, causes the difference—though that may cause a difference—because I know a man who says he had bees from brown stocks almost as light and marked like Italians, although there were no Italians in twenty miles of him.

I favor the idea of each correspondent giving his name and post-office address, also the different source that bees procure their supplies from. But would it not be better to give them as they occur or state the time when bees

begin to work on them, how long, &c. With us they have been working on maple, peach blooms, &c., but the winds and rains has kept them from doing much so far.

You, or some of your correspondents will please give me some information about some of the freaks of my Italians. The other day while passing them I saw them bringing out dead and crippled bees pretty fast. They seemed to be excited and were fighting each other, as the workers would return from the fields, many of them would be attacked and hurled from the entrance. I think in half an hour they killed at least three hundred. I gave them a good smoking, opened the hive, and the bottom board was almost covered with dead and crippled bees, I closed the hive and they have been all right ever since. Now I know they were not robbers, because I have but one Italian hive and every dead bee was an Italian. You will do me a favor by explaining the above so that I may better understand them in the future. One word now about comb building and I am done. I have seen it asserted that bees would build comb faster where fed on brown sugar than where fed on white. Now if that is so and if the brown is as healthy food as the white, it would be much cheaper for feeding purposes. Can you or any of your correspondents give any light on this subject? also if any of them has ever tried molasses, and with what results. Now these may seem like very foolish questions to some of your readers, but to me they are of importance.

Goldsboro, S. C., April 5th

—o—

Eternal vigilance is the price of—honey.

IMPROVING OUR NATIVE BEES, AND THE EFFECTS OF THE INTRODUCTION OF "CHEAP QUEENS."

BY J. P. H. BROWN.

I am asked the question, "Can our native bees be improved?"

They can, most unquestionably; the same as many species of animals. In the first place it is very important to know in what direction to direct the improvement. The most important points seem to be, 1st, hardiness and prolificness of our queens; 2d, vigor, industry and honey-gathering capacity of the workers; and 3d, gentleness of temper with less irascibility.

As many things relating to the natural history of the honey bee, such as fertilization; the effect of copulation of a pure Italian queen by a black drone upon the drone progeny; the peculiar transformation of a worker egg, or larvæ, into a queen, and so forth, are still involved in speculation, all efforts at improvement must necessarily be attended with many difficulties, and many experiments will be needed before demonstrative results can be achieved.

Two modes of improvement naturally suggest themselves: 1st, careful selection of both queens and drones; and 2d, by crossings with the most valued varieties of the honey bee found in other countries. The quickest and greatest results would be obtained, no doubt, by combining these two processes.

I believe that if a systematic course at improving the native bee of the South were kept up for a series of years, a greatly improved, and most valuable variety could be produced

It is generally admitted by the best bee-keepers, both in this country and in Europe, that the variety of the honey bee, known as the Italian or Ligurian, and found in a greater or less degree of purity in certain districts of Italy, possesses qualities that make it more desirable than the black. Here, then, is a variety that can be used to great advantage in improving our native bees by crossing. The worker progeny resulting from a cross of a pure Italian queen with a black drone are termed hybrids, and are much crosser than the pure Italians or the native bees; but their honey-gathering capacity is far superior to the blacks. A cross of a black queen by an Italian drone also produces hybrid progeny, but their temper is milder, and they are better honey-gatherers than the natives. This cross seems to be an improvement in the right direction and might be followed up. The former cross is so far superior, as workers, to the native variety that their ill-temper is even tolerable, for smoke will soon subdue it.

To improve our native bees is to add dollars and cents to the wealth of the country, just in proportion to the degree of improvement.

The introduction of the Italian bee into this country has done more for scientific bee-keeping than all else together. And in the writer's humble opinion, if efforts at the improvement above suggested were properly made, there is not the least doubt but that a variety of the honey bee could be produced for qualities far superior to both the black and the Italian.

As many persons will seek to improve their bees this spring, I advise all to purchase ONLY PURE TESTED queens to start with. Then they will have

no risks to run in getting mis-mated queens, as they will when they purchase untested ones. Even warranted queens are but little better, in one sense of the word, than untested ones. A warranted queen is one sent out untested. If she proves to have mated with an impure drone, the breeder agrees to send you another. But here is the trouble: It may be a long time before he can send you another, and then you have the same risk in getting another impure one, and all the trouble of introduction to go over again.

The idea of "dollar queens" originated with Mr. A. I. Root ("Novice"). They are bred from pure mothers, but shipped as soon as fertile, without any guarantee of purity or safe arrival. These conditions unquestionably afford room for imposition by the unprincipled. But when it comes to this, who will say that there is no dishonesty practiced in high-priced ones? Some years ago I paid \$20 for an imported queen that turned out to be a hybrid. In another instance I paid \$10 for a tested, home-bred one, that was no better than the imported. In another case I paid \$15 for an imported one that would produce some black workers among her progeny. On the other hand, I have purchased queens for \$3, \$4 and \$5, that were as fine and prolific as others that cost \$6 and \$8. I cite these cases to show that the QUALITY of an article is NOT ALWAYS dependant upon the price paid for it. There are exceptions to all rules. I do not suppose any one who purchases untested queens is so foolish as to expect them all to prove purely fertilized.

It has been urged by some writers that the introduction of these cheap queens will do an immense injury by

disseminating impure stock. Now I cannot see it in this light; particularly when the cross of the Italian and black is generally acknowledged by our largest honey-producers as possessing superior working qualities over the latter. This principle of improvement of inferior stock by crossing with superior, is fully recognized by all breeders of cattle. The only harm these low-priced queens can do, is, in many cases, to the party who raises them; for they can only be made to pay a profit in poor honey seasons, or in sections where there is but little demand for tested ones. In localities where the flow of honey is very abundant, an apiary run for honey will be more profitable than when worked for queens at most any price.

I find some writers have a proclivity to write "up" their own wares and their neighbor's "down." Because Mr. A. sells warranted queens for \$1.50; Mr. B. sells a tested queen for \$2.50; or Mr. C. sells a "dollar queen" is no reason why I should pronounce Mr. A. B. or C.'s stock of Italians impure and themselves swindlers.

I am a queen-breeder myself; regulate my own prices, and am willing to grant the same privilege to others. If a man sells queens lower than I do, it is none of my business; if another sells them higher, it is just the same. Only so they all do what is right and honorable.

Augusta, Ga., April 8, 1874.

BEE KEEPING IN RUSSIA.

The following is an extract from "Russia in the Nineteenth Century," by Von Th. von Leugenfeldt:—Bee-keeping is everywhere practised in

Russia, more especially in Little Russia and New Russia. In the province of Pultawa (population 2,000,000), there are 500,000, and that of Yekaterinoslaw (population 105,000), 400,000 hives. In Western Russia it chiefly flourishes in the province of Knowne where the Tchmude tribe are principally engaged in bee-keeping; and in Eastern Russia the Finnic tribes are enthusiastic bee-keepers. In Siberia, the pursuit is mostly carried on about the Altai Mountains, and in Caucasasia by the tribes of the Meretintzes and Grusinians. In South Russia artificial bee hives are used, whilst in North Russia the bees are kept in a natural manner in the forest.

In former times Poland was celebrated for its bee culture, and is still now to some extent in the province of Lublin, having everywhere else fallen into decay. The why bee-keeping is so industriously carried on in Russia is twofold. First, because the peasants use honey instead of sugar; and secondly because the wax tapers to the value of 1,200,000 rubles (nearly 1,825,000) are required for the churches. Buschen states the quantity of honey annually produced in European Russia to be 600,000 to 700,000 lbs. (9,643 to 11,250 tons), and a proportionate quantity of wax.

The game cock has been dubbed for the pit for a period of 300 years. This process of cutting the comb, has never yet entailed malformation on the part of the progeny. If the progeny of a dubbed game is always well developed, why not the progeny of a clipped queen? Among sheep breeders the custom of cutting off a portion of the tail of the young lambs has never resulted in malformation, either.

REPLY TO NESBIT—NEW IDEA HIVES—QUEEN RAISING, &C.

BY R. M. ARGO.

In answer to friend Nesbit's query, as to raising queens in small boxes 6x6x8, on page 130, April number of BEE WORLD, I would say: Were I sending off warranted queens like Alley, Johnston and others, at from \$2.50 to \$3.00 each, it would be more economical, and less trouble to rear in small boxes, using strong, full, stands to mature the cells. But as I am only raising and selling purely tested, and prolific queens, I think it more economical and less trouble, to rear in full stands and nucleus with three or four full-sized standard Langstroth frames, the sort I use. My reasons are, I could not winter the small boxes safely, and there is considerable trouble to preserve the combs in good condition, and from the moth and mice. With the standard frame nucleus I have no trouble to winter, especially those with five frames; and those with only three or four frames I can double, or unite two into a tolerable strong stand. In fact, I greatly prefer standard frame nucleus, when the standard frame is not too large; and it was for this reason, mainly, that I made half a dozen New Idea hives, with the standard frame 11x13. My aim was to have all my nucleus large enough to hold from five to ten of these frames, and use the six large hives to supply the bees, honey and brood for the nucleus. These hives did exceedingly well last season, but wintered the worst of all others. I think I can remedy this defect, and cause them to winter well yet, as follows: My New Idea hives are 40 inches long; I will

make an entrance in each end, and in the fall, after the bees are done gathering honey, I will put in a division board and give the other side a queen. By so doing, I think each swarm would winter well, as their winter space will then be contracted to one-half, and will be considerably warmer. Bees will winter better in a hive of about 2,000 cubic inches than they will in a space double that; and how, then, is friend Nesbit to winter his bees with a standard frame 12x16, and 16 frames to the hive?

Will he not use a partition board, and winter two swarms in one hive? I would assure him that I have tried it frequently, and they winter first-rate in that way.

I agree with friend Nesbit that a frame 12x16, and 16 frames to the hive, is less trouble, and the best way to get extracted honey; but for comb, or cap honey, this plan would not work well.

LATE SPRING.

This day, April 17th, is very cold, ice $\frac{1}{4}$ inch thick. All such fruits as were in bloom are, I think, killed sure. Some of my stands were very strong; had begun to seal over new fruit honey, and a few already at work in such boxes as had empty combs in. I fear that this cold spell will knock the bees out of bloom until white clover, which will not come for three weeks yet; but it promises to be a very good crop from present appearances. Last summer and fall was so dry that I feared the white clover was ruined for a year or so, but now I notice it is coming up very thick everywhere.

Lowell, Ky., April 19, 1875.

—o—

An Irishman calls his sweetheart honey, because she is bee-loved.

SKETCHES FROM TENNESSEE.

BY S. D. MCLEAN.

PROSPECTS BLIGHTED.

MR. EDITOR:—On the morning of the 17th inst. we had a freeze, and light snow, which has evidently done much damage to fruit growers in this locality; and it is feared by bee-keepers that it has more completely blighted their prospects for honey from the poplar, which, with us, is about one-half the yield. It being so soon after, when we write, we can form no idea as to the extent of the damage; but, from the appearance of the foliage on the poplar trees at this time, which is black and dead, the honey yield from that source will be greatly injured, if not entirely destroyed.

M. C. HESTER

We are glad to note the return of our friend, of drone notoriety, M. C. Hester, to the list of contributors to your columns. May he do good service.

APIARY FOR MAY.

Again does May visit us, bringing choice treasures from Flora's rich magazines, which she distributes without reserve to all who are prepared to receive.

The apiarian who has his bees all prepared for the occasion may expect a rich feast from the many honey secreting plants, such as white clover, blackberry, poplar (if not destroyed by the cold snap of April 17th,) with many others, which at this time make their appearance and open their store-houses to our industrious little servants, who are not slow in appropriating their rich treasures.

Give your bees the full capacity of their hives. Return combs, if any

have been removed during the past winter. Enlarge the entrance, and remove every obstruction that may tend to hinder their passing freely into and out of their hives. Let nothing be lacking on your part, for now is the propitious time we have all been waiting for. He who desires the best results from his bees must not allow them to fill their hives with honey and seal it up, thereby leaving no room for storing, and thus wasting precious time that can never be recalled. But he should make free use of his honey machine, and never, while there is a rich flow of honey, allow them time to seal it, but take it from them just as they begin the sealing process, as it is then ripe, thereby saving them precious time and himself much trouble in uncapping. For storing away honey use oak barrels. Prepare them for the honey by pouring four or five pounds of melted wax in them, they being perfectly dry, stopping the bung hole and giving them a few turns so that the entire inner surface be completely waxed. Open the bung hole and pour the wax out while hot and you will have your barrels nicely coated inside which renders them less liable to leak and forms a natural receptacle for the honey.

The swarming fever will be very high during the continuance of the honey season. Have hives in readiness. Keep them in the shade that they may be cool when needed.

When swarms issue hive them immediately and place them on the stand they are to occupy for the season. Shade them well for a few days, for if allowed to set in the sun and become much heated before they have young larvæ hatched, they are liable to leave and go to the woods. The better plan

is to swarm your bees and thus save the trouble and perplexity occasioned by natural swarming. There are many ways to swarm artificially. The plan best adapted for the beginner is to take a frame or two of brood from each of several hives, sufficient to fill a new hive, placing empty frames in place of those removed.

Place the new hive with the combs of brood in place of a strong colony while the bees are out at work, setting the hive removed on a new stand at a few yards distance, and enough bees will return to the old stand to make a good colony with the new hive. The above process may be repeated every few days, care being taken not to weaken the hives by too heavy drawing from them. New made swarms may also be drawn from in like manner in a few days provided they have a good fertile queen. The success of the new made swarms would be facilitated by giving them a fertile queen when made

Culleoka Vaury, co., Tenn, Ap il 20th, 1875.

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REVIEW.

BY JEWELL DAVIS.

MR. EDITOR:—In the March number friend Fletcher talks upon the subject of "Wintering Bees." He tells of their rushing out when too cold, and consequently fell and died by hundreds. Well, this was bad, but perhaps not so bad as that the whole colony should perish by long confinement.

Under similar circumstances I would scatter straw all over the snow in front of the hives, thus preventing many hundreds from perishing in the snow. I cannot practically say why friend Fletcher's bees came out of the hive, when the thermometer indicated the

temperature down to zero, unless the bees were sick, and wanted to get away from the hive; or that the hive was too warm for them; or offensive to them from bad odors; or that many of the bees were advanced in age, and were determined to leave the hive to die. I never had a parallel case. I do not think long confinement, alone, causes the difficulty, but a bad quality of food in connection with the long confinement, and impure air, may cause them to become sick, leave the hive and die. My bees never wintered better than during the past winter, both in and out of doors, nor were they ever confined longer at one period of time, or subjected to any colder weather—most of the time—since I have kept bees. I feel satisfied that I must, consequently, attribute their safety to a better article of honey, and perhaps to a larger number of bees to the colony. Then, friend Fletcher, let your motto be "try, try again."

Friend Knight discourses upon the "Longevity of Bees." He admits that queens often live four or five years, and that the drones are short lived. But he questions the standard admissions as regards the durations of the workers' lives—is not willing to admit that their life is cut off after a period of eight or ten months closing the cold season of the year, or in three months in the early summer season.

Well, suppose he does not admit it, because he found an exception to that rule, by a few bees living to be more than one year old, will that set aside the general rule or the experience of the chief bee keepers, that if they introduce an Italian queen into a black colony of bees in May, that all the black bees will disappear from that colony in three months? or if introduc-

ed in September the black bee will be gone by the middle of the next June?

This is the admitted and verified truth, in a normal colony, but the case you present is different—it is that of a queenless colony; and your case being true we have an abnormal case, both as to the colony and the length of the lives of some of the old bees. Does friend Knight wish to beg the question, when he intimates that casualties kills more bees than old age? All may admit that.

Next, friend Applewhite talks to us of "Bees in Mississippi," giving his experience of two years, relating the honey resources, from the maple, willow, peach, apple, blackberry, and the gums; and next he speaks of the enemies to bees in the South. I refer you to his list for their formidable character.

Friend Leach refers to the "Honey Seasons," and in speaking of them says, "I like Argo's suggestion in regard to Bee-keepers giving the time and duration of the honey season in their locality." So do I. Our chief crop of honey here is from the fruit bloom, and the white clover. The fruit bloom occurs in May, the clover in June. Buckwheat sometimes does well.

Friend McLean now gives us another chapter of "Sketches in Tennessee." He first notices Dadant's remarks about "Candied Honey." We believe with McLean that Dadant's motive was good, and also that his remarks need some explanation to suit every case. He notes then the source and time of the general honey harvest in Middle Tennessee. As I supposed, he is not so easily frightened by Sherendon's masqued battery of fictitious names, but wishes them to present their true names in open daylight, or

at least by the Moonshine of the BEE WORLD. Then we have directions for the March treatment of the apiary, which is as it should be.

Friend Argo is again on hand, asking room to make his reply to friend Nesbit and others; and I hope he may continue to speak whenever the case demands.

Those who have had an experience with disconsolate swarms, similar to Anna Saunders, will answer her question.

My friend Nesbit decides that his experience favors the admission of sunlight to the front of the hives in winter, instead of excluding it, as taught in the books, or otherwise. Use the straw upon the snow, and let them have the sunlight. It is for their health, the same as for man, and few bees will be lost, except the old ones, which are leaving the hive for the last time. If bees have poor honey they need flight oftener to discharge their feces, and at the same time enjoy the bracing effect of fresh air and the light of the sun, to keep them healthy.

Uncle Harry Goodlander has been trying experiments on the color of worker bees by the use of Iron in water, and finds that he can change the color of the workers from the same mother by that method, during a part of the season.

I am glad, friend Wilkinson, that your bees have wintered well, and that you apparently raised one from the dead, by the warming process, and that they look like "weathering the storm."

Kate R. Grayson has favored us with a long article referring to quite a number of items which I must pass this time without any special notices.

My friend Burch intimates that the

"World reveals the fact that it contains many well written articles, embodying good ideas, and useful suggestions." Is that true? I am glad it has become such a vehicle of good and useful things in Bee Culture. He adds "still it leaves an unpleasant impression in some respects, for instance on almost every page there is a manifest spirit of captious criticism, which is conducive to no other result than personal animosity." I am sorry to be compelled to differ with my friend Burch about the captious criticisms he professes to find on almost every page of the BEE WORLD. We think that impression is too sweeping. He may find an occasional article of that class, but I think they are comparatively few for so many writers of "good ideas" and "useful suggestions."

The fact is the opposite would present incompatibles.

The first article in the BEE WORLD for April is devoted to the discussion of the origin of the honey bee, and hence I do not make any remarks upon it.

My friend Hester, after a long absence from the WORLD, comes forward with a good article, detailing his experience for the last twelve months. It should be read with care.

Friend Nesbit thinks I made a mistake about his standard frame. Well, perhaps I did; but I understood him to be talking about a 10x17 frame he had been using for years as his standard, and that he now agrees to use one 12x16. Of course I stand corrected.

Dadant now appears with his fourth article on the Native Land of the Italian Bee.

Friend Howell informs us that he is a new beginner in bee culture, and

gives his experience for one year. He began with seven colonies one year since, and now has sixteen in fine condition, and some of them with boxes of fine honey, so early in the season. We in the North are not yet out of our lingering winter. Here, too, we prefer to transfer just as the bees begin to gather honey freely, before the combs are much filled with it, as then the combs are easier to transfer.

Friend Mahin informs us of the loss of bees in his section of Indiana, and of his own loss. He thinks his experience will enable him more safely to winter in the future. We are inclined to think bees become diseased from bad food, bad air and long confinement, by intensely cold weather condensing the breath of the bees into water or frost, thus rendering the hive damp and unhealthy, if long continued.

Friend Kellogg also tells of the ill success of wintering bees in Northern Illinois, although he lost but one himself. Yet his neighbors lost heavily, and but few colonies are left in his locality. He says it is unjust to call liquid honey impure.

Friend Argo seems to have had good luck in wintering his bees, he adds that the winter still hangs on. The same is true here.

Friend Barber's remarks on the Mellilot clover should receive special attention from every bee keeper. My experience confirms his statements as it regards its value for honey, after other resources have failed. It keeps the bees employed up till frost kills the bloom.

Anna Saunders also gives a good sample of female courage worth our while to encourage even in the sterner sex.

Mr. Nesbit asks Mr. Argo if there is not more economy in raising queens in small boxes than in the full sized standard hives—certainly we await Mr. Argo's answer.

Bro. McLean informs us that when the WORLD fails to be on time, the "light is obstructed," and without a Moonbeam to shine on the pathway of bee keepers, they grope their way in darkness. O, that its regular issue could prevail! He then calls attention to the duties of April, in the apiary, and to transferring, showing that it can be done, in his latitude, safely in April. I often use twine in place of the sticks, for tying in the combs and find it more convenient than the sticks. Try it. Our friend Alley discourses upon "cheap queens" informing us that there is no money in the dollar queens, that to raise them for that will be a losing business.

Mr. Mahin wants to know if freezing destroys the vitality of the eggs of the bee moth. Perhaps in some instances it does, and in others it may not. The general impression is that severe freezing does not destroy them.

Friend Dadant gives notice that his bees wintered well. He cites the case of a colony starving to death with plenty of honey in the hive, and shows how it was done. Friend Pike puts in his objection to Dadant's rule of testing Italian bees. He seems to hold the same idea that Uncle Haray Goodlander does that the color of the workers can be changed by the will of the bee-keeper or some how else, but does not give his plan of doing it.

Bro. Bryant is out in complaint of the typos, seeing they do not spell his words right.

Then follows a hint to Reviewer but somehow Reviewer does not yet catch

the idea. Did I slight him, I did not intend to. I was not comparing his North and South in my remark on "stray thought." I am glad friend Bryant has the courage to stand up for the right in the South.

Charleston Ill., April, 16, 1875

—o—

THE RIGHT PERSON FOR AN APIARIAN.

MR. EDITOR:—The bravery and coolness of Miss Anna Saunders of Woodville Miss., is enough to prove her the right person for the bee business.

When I commenced with bees it was nearly two years before I would dare hive a swarm or rob a stand, and when I did I used protection enough to have made a stupid Jack laugh. And now I am no more afraid of a bee than a fly and would like to see the hive or the swarm that I am afraid to manipulate, even without any protection except for the face.

I use a stepping ladder to hive bees when they do swarm (which is not often as I make my own swarms) and on one occasion while coming down with a large swarm of hybrids the ladder suddenly turned over with me letting me down first, with the bees next, all over me. I retained my presence of mind and well knowing that a careless move would mash hundreds of bees, and as I had as yet felt no sting, I lay as still as possible a moment or so, then rose as slow and carefully as if I were wounded all over. I succeeded in rising and hiving them, to my surprise without a single sting, and without mashing more than it was possible under the circumstances.

The reason was they had swarmed at ten o'clock while full of honey.

On another occasion, seven years ago May 1st, I had a large swarm of hybrids, mostly $\frac{1}{2}$ pure Italians come off and settle in a cedar tree. This was at 2 o'clock while not very warm and very little honey to gather. At that time I used both bee veil and gloves, and went to hive them well protected. The first shake of the limb was a dreadful stinging even through the clothes, and an attempt to get through the button holes. I retreated to the room followed by a hundred bees. I washed in cold water and adjusted the protections still better. But the next attempt was no better: the bees were infuriated and stubbornly mad.

The third time I went with double protection, and a duster over all. The idea then occurred to me that shaking the cedar limb may have been the cause of their madness, so I got a dipper and went at it different, this time with success, and would here say that I was very gentle and slow the third time. After all they refused to stay in the new hive I had put them into, but came out in an hour and entered their old hive. Next day they swarmed again, and after hiving them I went to church to come back and find they had taken French leave for parts unknown. I saw a gentleman two weeks after that, who said he saw a swarm of yellow bees crossing a creek the same evening they left me ten miles in the direction. And a few days after saw another gentleman that said he had captured just such a swarm and had them at his home ten miles in the direction they went. Now no one else in Central Ky., had Italian bees at that time.

I got about a hundred stings in this case and used nothing but cold

water. I had rather have twenty or thirty stings a day than only one or two.

Lowell Ky., April, 17th, 1875.

CLIPPED WINGS.

BY M. QUINBY.

When a boy, (nearly 50 years since) I had a passion for bees, and any insect that had a semblance to one was noticed with interest. Some species of ants in this latitude, near 42, exhibited peculiar traits, that did not escape notice. In spring or early summer—about ten or fifteen days before I expected bees to swarm—these ants would issue in what I called swarms. They seemed to nest in wood nearly rotten; oftenest in an old pine stump, we having many left in the fields yet. Their passage way was usually in one of the old roots near the ground. About 10 o'clock, of a clear day, they could be seen on the outside of their home, hundreds of them, of all sizes, with and without wings. Many without wings, seemed to be only $\frac{1}{4}$ inch in length, while many with wings seemed to be nearly an inch long, but not so bulky the other way in proportion as the bee.

After running about the entrance for a time, those with wings began flying off, and kept a continuous stream for perhaps an hour, scattering after reaching a considerable elevation, here differing from the bees. Whether those without wings all returned to the nest, or some crept away, I did not observe—never saw any that had flown away return to the nest. Whether those that flew off were all females, or only part, I shall have to guess at; but since it has been ascertained that the queen bee flies to meet

the male, it seems probable that the ant does also. Later in the day, I have seen scores of the larger ones—I would say hundreds, but the smaller number will answer—creeping over the ground, without wings, apparently lost. I went further: watched some of them while on the wing, saw them alight on the ground, and after running a few feet, stop, and bite, or tear, off their wings, and then proceed on foot. This much I have seen. I will guess that some of them found a place and started a nest, with help or otherwise.

There are those who think that wings are necessary for respiration. Of such, I would enquire: How it is ascertained that wings are used for that purpose? and if they are thus used, if the insect is any less healthy when they have torn them off, or been deprived of them? Is there any difference in the structure of an ant's wing and that of the queen bee, with regard to breathing through them? If they are alike, and the instinct of ants induces them to destroy these appendages when they have performed all that they are created for, is there any harm in clipping the queen's wing when it has done all for us that we care to have it do? That they do not divest themselves of it I admit, but this fact demonstrates the wisdom of their Creator. Those understanding the natural history of the bee knows that in their native state the old queen leaves with the swarm, and occasionally travels long distances. Here the necessity of wings being left on is obvious. Man has changed many things from the exact state from which they were created, for his own convenience, and has reaped benefits.

I have studied to keep bees with

the least possible expense—I mean in care and trouble—and when, after due consideration, I am satisfied of a point gained, I adopt the principle. When I clip the queen's wings, and find many advantages without corresponding disadvantages, (further than depriving her of an imaginary respiratory organ) I shall continue to do it.

Many bees are in the cellar yet: weather cold, April 20. Will report further next month.

St. Johnsville, N. Y., April 22d, 1875.

A CHINESE BEE.

The apicultural section of the entomological society, at its annual meeting in Paris, August, 1874, made many interesting statements. M. Durand Saint Armand, a government officer in Cochin China, states that that country possesses a bee twice the size of ours, which consequently ought to have a proboscis long enough to extract the honey from the clover, which is known to be very abundant. This bee is found in great numbers all along the coast, in a wild state, in hollow trees, and the natives hunt them for their wax. The extensive forests of this country are leased for the product of wax, which is to be sold to the Chinese. M. Durand Saint Armand has acquired a certain knowledge of bee culture so as to be able, if possible, to domesticate the bee and send them to France. Would it not be well for our bee keepers on the Pacific to investigate this? It has a promising look.—Country Gent.]

To be successful, three elements are essential: Perseverence, Energy and Faith.

NOTES FROM TENN.

BY E. E. BARNUM

The WORLD turns up once a month, with something new each time. The last number is especially filled with good information.

But few people keep bees for any thing but profit in some way, and the question arises, In what way, or by what means, can we obtain the greatest profit?—not the most honey, or the most swarms, but the most money? Careful and practical experiments—when reported to the bee journals—will aid in arriving at a conclusion. Most people are apt to report when they have fine success, or taken an extravagant amount of honey from a few colonies, which is all well enough, but we must consider all the points.

One question which is not fully settled is this: Is extracted, or comb honey the most profitable? If it is comb honey, in what shape is it the most saleable? in sections, or boxes? And how most safely carried to distant markets?

Will it pay to ship bees from one place to another, for pasturage? We will take the ground that it will pay to ship North for summer, and South for winter and spring, especially from such places as this, where the drouth is usually severe in the summer months.

We have undertaken to test this matter to our own satisfaction, this season, and have shipped 70 strong colonies, on the 13th of this month, from this place, and Gallatin, to Indianapolis, Ind., where they will be kept, $3\frac{1}{2}$ miles from the city, and run in equal numbers for extracted and comb honey until about the 15th of

September, and then be returned to Edgefield Junction, Tenn., in time to gather the aster honey, which is by far the most abundant crop we have. Last fall it yielded from 40 to 50 lbs per colony in September and October, clear white honey when candied, which it does at once, either in the comb or extracted.

Our bees had stored about 10 lbs per colony before shipping, from the vesicaria lescuri, and the fruit bloom. The former is a small, yellow, plant, that blooms first of all things, and grows spontaneously in this section. Hundreds of acres are now in bloom since the 15th of March, not very rich in honey, but of a good quality.

The cost of shipping is about 50 cents per colony, one way, by freight. They were accompanied by a careful man. I presume the little pets will get over their swarming propensity for a while, by going North at that time, for you will all remember how cold it was.

We intend to keep an accurate account of these stocks, and report to the WORLD.

A few items, by way of review of the late Dr. T. B. Hamlin's career in the bee world: By being connected with him in the nursery business for 6 years, and assisting him in every branch of apiculture, we learned to love him, and to know that the fraternity has lost one of its worthy leaders. After having kept bees for 40 years in the old style, he commenced here in 1866, with 6 or 8 colonies of black bees in box hives. In 1867 he was visited by his friend, L. L. Langstroth, who sold him some queens and hives, and assisted him in getting some queens from Italy. His bees increased rapidly, doubling each year until 1870,

and yielding from 25 to 50 lbs. of honey annually, at the same time. In connection with other bee-keepers, he imported queens every season. He sold his first queens at \$15 each, and full colonies at \$40; and by the utmost care and untiring energy, and a high sense of honor, gained a reputation as a queen breeder equal to the best. In 1872 he had stored over 7,000 lbs. of honey, and closed the season with over 300 colonies. He sold his honey in Nashville, Louisville and Cincinnati, at from 15 to 25 cents per lb. In 1873—the worst of all seasons, here—he had no surplus or increase, but reduced his number greatly by sales of full colonies. In 1874 the spring was unusually backward, and wet, and it found his home apiary with only 22 colonies, and 50 at Gallatin, Tenn. This latter 50 stored in three years, at that place, over 6,000 lbs. of honey. They were rented for one-half the honey and increase, but did not increase but 5 in the three years.

The home apiary was rented for the season to Mr. Frank Benton, for one-half the increase, honey, and sale of queens. The increase was 24, and the honey taken was about 3,500 lbs., the most of it being gathered in September and October.

Dr. Hamlin died in May, leaving all his effects to his wife. She being anxious to retire from the cares of a large farm, nursery and apiaries, sold the nursery to Barnum & Peyton, and also the Gallatin apiary. The home apiary, together with all the personal property, was offered at public sale in November, 1874. The neighbors came in and run the bees up to an average of \$8.53 per colony. Twenty-seven colonies were bid off by beginners, or those who know but little of improved

bee culture; and 75 to Barnum & Peyton, who keep them now in the old place.

Dr. Hamlin's desire was more to have a pure stock of bees than to make honey, consequently, that, with his poor location for clover honey, kept him from making much money, as, on the whole, he was overstocked most of the time.

Edgefield Junction, Tenn., April 20, 1875.

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HOW MAY THE MANAGEMENT OF BEEHIVES BE REDUCED TO THE GREATEST SIMPLICITY, WITHOUT DIMINISHING THE PRODUCT THEREOF, AND WITHOUT EXACTING TOO CLOSE ATTENTION FROM THE OWNER OF THE BEES.

[Translated for the BEE WORLD, from the March number of *L'Apicoltore*, a Bee Journal, published in Milan, Italy.]

Many persons, upon reading some treatise on bee culture, wherein may be found united so many scientific theories, so many practical suggestions, with descriptions of so many, and so complicated operations, especially in the first steps of the undertaking;—besides being impressed with the real difficulty of this branch of industry, fancy also that the keeping and tending of bees exact much more time than is convenient for them to give; and an assiduity that requires constant presence at the hives, when this business is undertaken on a scale sufficiently great to render it sensibly profitable. Thus many persons are deterred from engaging in this industry, except as a mere amusement.

But is it, then, true that bee-culture, in order to be productive demands so much time, and so much labor?

No, assuredly. The art of managing bees with profit may certainly be

simplified so as to demand the least possible labor and the least possible time, and in such a way, indeed, that the occupation shall offer no obstacle; it being entirely possible, to manage one or more stands without dwelling in the same place where they are deposited. In order to demonstrate this assertion I shall not have to say anything new; it will be enough for me to discard the useless and superfluous, and to show forth the simplest, the most convenient and the surest processes of the art.

Certain conditions, however, are indispensable; and my first care must be to enumerate these.

I. A location favorable to the cultivation of bees.

II. The director of the stand must be a true bee-culturist; that is, not only a profound theorist, or merely a worker upon theories; but to both theoretical and industrial ability, he must unite that practised experience which can inform him by a glance of the eye as to the necessity and opportunity for the various operations; an experience indispensable to the successful government of a large number of hives.

III. A bee-tender, of whom it is enough to require that he should have some intelligence, and that he should know how to hive the natural swarms.

IV. Hives very capacious, readily understood, and furnished with movable frames for the comb.

V. A sufficient provision of empty comb.

VI. Gather but one harvest at the end of the season, and leave the honey of the first year stored in the hive rather than place it upon the market.

VII. A complete renunciation of artificial swarming.

VIII. An acquaintance with the flo-

ra of the country; that is to say, a knowledge as to when the great production of honey may be assured ordinarily; what, in general, are the meliferous resources; and during what flowering the bees usually swarm.

Under the above named conditions, the management of a stand of bees may be considered in this manner:

January. The bee-tender must see that the entrances to the different hives do not become obstructed with dead bees, and must make a mark upon such hives as show an extraordinary mortality.

February. The owner of the stand now makes his first visit to the place. His observation and attention may be restricted to those hives that showed anything unusual in their condition during the winter. The bee-tender shall burn a sufficient quantity of sulphur to preserve the comb in the fumes.

March. Second and more particular visit. Each hive must be examined separately, first at the opening, then throughout the frames. It is necessary to examine critically only such as may present an abnormal appearance. Those destitute of queens must be united without delay to others better conditioned. For the other hives it will be enough to see that they are well provided with honey, and that the population be not much impoverished, a fact that may be ascertained even without opening the hives. When the swarm is well nourished in relation to the external temperature, and the two combs next the middle partition are intact, the colony needs nothing but quiet and a favorable station. In the contrary case, some comb with honey should be introduced, and the capacity [of the hive] should be di-

minished towards autumn.

April. Into the flourishing hives introduce, now, enough empty combs to fill the lower floors, leaving, however, the necessary space for the brood, and bee bread which should not extend higher than the third floor, on account of the sudden changes of temperature. The less flourishing colonies, also, may be augmented in the same manner. Everything must now be arranged for locating the natural swarms. I have advised the total renunciation of the artificial swarms, not because I believe the practice devoid of advantages, for when conducted with intelligence it is quite the contrary; but because when it is desired to derive any positive advantage therefrom, much diligent attention is demanded, thus necessitating the permanent residence of the bee-owner, which is an obstacle we propose to do away with. It should be charged upon the bee-tender to hive the swarms and to lodge them in hives with movable frames; a labor that every country-dweller that has ever hived swarms in the accustomed manner, easily performs. Then it must be impressed upon the bee tender to take care that all the frames are in place; leaving six to eight, according to the size of the swarm, only on the second floor. Also, he should introduce, one, two, or three combs, as he may have more or less at his disposal, in order to prepare the bees to construct in the desired direction, and to lessen, in this way, the labor of producing wax. The bee-tender should not undertake to unite natural swarms, nor undertake any operation; but should limit himself to such as are plainly indicated, and are within the comprehension of any moderate capacity. The weak swarms let the bee-tender collect and

lodge (like the others), with only this precaution, that the capacity of the hive be always proportioned to the size of the swarm. In the second half of this month, a visit may again be necessary, to ascertain, at this important period if all has been regularly attended to and remedied in time, lest something might have been left undone. But if the swarms are backward, the second visit may be omitted.

May. The bee-culturist repairs anew to the bee-stand. If the situation has proved favorable the hives will be full of honey. He will open the third floor of the thrifty hives, and introduce there combs with small cells. The hives less thrifty are also to be furnished with empty combs, of small (worker) cells. It will be well to transport to the third story the combs already loaded with honey, and to place the empty ones on the lower floors. The weak swarms must be reinforced with larvæ, and honey in the comb, and the weakest should be made to combine together. Should the swarming have been retarded, instead of the second visit in April, a second visit must be made this month. And here I must premise that one should be able to discern whether the practices I advise are to be urged on, or restrained, according to the locality and the season.

June. The same operations as in May. Now it is that the space for new swarms must be enlarged. Which, indeed, the bee-tender himself may do, when he sees that all the combs are united throughout their whole length. But if any hive gives indication of remaining orphaned in consequence of the uselessness of their queen, they must be reinforced with larvæ.

July, August and September. One visit a month to see that all proceeds regularly.

October. In the first days of this month, are performed the most important among the diverse operations of the year. If the stand does not yet contain the contemplated number of hives, the harvest must be renounced, utterly, and the hives must be arranged for the winter with all the precision that the expert bee-culturist ought perfectly to understand. Twelve kilograms of honey should be left in each hive. [A kilogram is a French weight, equal to 2 lbs., 3oz., 4.65drs (2.206 lbs) avoirdupois.—McCulloch, as quoted in Worcester's dictionary]. But should the bee-owner decide upon leaving a smaller quantity, he must, at least, take the precaution to see that the combs immediately next the middle frames are well filled with honey, as thus he will have in spring a sure indication of the deficiency of provision, without being obliged to disturb the central frames. To the expert bee-culturist who may not yet have accumulated the number of hives he intends to have, I add a word of advice;—and that is, that he should hasten to complete his stand by purchasing, in the autumn, from the neighboring country hives. When he knows how to choose well, this is always good management; and his design is thus more quickly accomplished. For although he may desire to increase the number from his own hives, he is of course reluctant to divide his hives in autumn, or his swarms in spring, (which might have been practicable, if not advisable), and thus accumulate many colonies that would merely exist without prospering. And though this division of hives and swarms is often resorted to, it may be avoided.

If, however, the number of hives is established and arranged, the harvest may be gathered. For this purpose, the upper floor of every hive must be emptied entirely. Afterwards about a third of the hives may be robbed to complete the harvest. I say a third; but in certain very propitious localities, and where generally there are many new swarms, even a half may be taken. It is preferable to take from those hives that are not in good condition; that is, the thinly-populated hives; the orphaned hives, and the hives purchased in the country to complete the stand. Also it is advisable to gather from the hives alternate years: that is, from one out of every three, to one out of every two; for the bees of those hives abstracted from the previous year, have to repair their loss more industriously than those hives that were spared. In order, then, to abstract the total harvest, proceed in this manner: The hives to be robbed must be removed, two or three at a time, to a spot remote from the stand. After drumming on the hive a little, take out all the comb. Shake off the bees in a place dried by the sun. The combs with the honey in them are placed in a close hamper and transported gently to the store-room; those that contain larvæ are replaced in the hives that remain empty. The queens are destroyed or sold. The hives being emptied, the combs with larvæ are carried back to the stand and introduced into the hives where it is intended to preserve them. The bees being filled with honey by the drumming, go to reinforce the neighboring hives. The harvest being gathered, the opportunity will now be taken to settle the hives for the winter, as advised above.

At the end of this month, the bee-owner should make another visit to the stand, which will be the last that will be required. He will now take from the spared hives the combs of the robbed hives, which combs have now become useless, since the hatching of the larvæ. Also, he will now complete the winter arrangements.

November and December. The same course as suggested for January.

It appears to me that the advantages offered by this method are neither slight nor unimportant. Rational bee-culture is thus reduced to the greatest simplicity, and the practice readily succeeds. The time demanded for the management of the hives is the least possible, since, besides the little care of the keeper, and the hiving of the natural swarms, we may calculate, for every hundred hives, say:—one day for the first visit in February; from two to three days for the second visit in March; nine days from April to May; two in June; two from July to August; and eight days for the work of October: in all, from twenty-four to twenty-five days. In unfavorable years some days more may be required. Thus a stand may be managed at some distance from the proprietor's place of residence; and thus a more propitious locality may be selected, and a greater number of hives be controlled at once.

Some may observe, perhaps, that in the method described many small cares necessary to produce the greatest yield are passed over. But when the stated directions are strictly followed, it is not difficult to perceive how everything essential is provided for, without special mention. For example: it is certain that to exchange old and barren queens for better, is a use

ful practice, for as the queen is, so is the hive. But see, now, how, in gathering the harvest, this is provided for in the simplest manner. We have counselled the robbing by preference of those hives that are slightly populated; and in doing this, to destroy those queens that are defective, for a thin population is a sure indication that the queen is barren. Again: it is certain that the drones consume much honey, not only when grown, but also in the larvæ state, and therefore it is well to eliminate them, or at least to limit their production. But with the extraction of all those combs that contain small cells this result is obtained without other precaution, without loss of time, and without the inconvenience presented by all other methods. Another example: there are a thousand methods of preventing the queens from laying their eggs in the hive; which it is necessary to prevent in order to obtain a more choice product, that is white comb and honey, in which no larvæ has ever been. The aim is just; but the method not always good. Generally this object is compassed by separating the hive with partitions from the surrounding part destined for the larvæ. But these partitions must receive damage from the ordinary labors of the bees, and the matter is made worse when the partitions become minutely perforated. But why limit at all the deposit of eggs; or rather, why prevent the queen from depositing her eggs where she prefers, seeing that the work of the bees is most active in those parts of the hive accessible to the queen? Have a large and undivided space, that is, a full third larger than the largest space the larvæ can occupy, fitted with small celled comb; then the queen

may deposit as many eggs as she can, and you will have always a space reserved for natural honey; that is for the whitest comb, and the most translucent honey, in that part of the hive most remote from the larvæ. Is it not clear, then, that under the given directions, one need not despair of obtaining the best product, and of obtaining it in the most rational manner?

It is well known that too abundant swarming is a great drawback to the production of honey, and there are innumerable means advised, all more or less efficacious for restraining this, although it is neither well nor possible to impede it. By introducing into the bed of larvæ in April or May, empty comb with small cells, as has been advised, and by surrounding the third floor in those hives most thickly populated, one does, in time, limit sufficiently the natural swarms, although many of the hives thus treated do not swarm at all, and many swarm but once. [In the season? Translator]. Moreover, we thus make it certain that the bees shall find a magazine to receive the great product that the fields offer.

Finally, it is conceded that the art of bee culture rests solely upon attaining and maintaining the most populous hives. And how is this end to be more efficaciously and more easily attained than by the method suggested? A method by which the swarming is diminished, the useless queens eliminated, and in the complete gleaning of weak hives two colonies are concentrated in one hive for the autumn.

I do not claim to have completely solved the difficult problem presented for discussion; since it is beyond question that the greater the attention, the more diligent and intelligent the

care, the greater, up to a certain point, will be the product of the hives. I will content myself with having proved that productive bee culture is possible with the least outlay of time; and that, the necessary experience once obtained, the art of maintaining bees may be reduced to a very simple practice. If by this means I shall have succeeded in encouraging some backslider, or at least in persuading the beginner that to do well does not depend upon doing too much, which is often as injurious as negligence; but that on the contrary, doing well is consistent with doing the least that is necessary, I shall have attained more than my poor hands merit.—G. BARBO, in *L'Apicoltore* for March.

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NOTES FROM WEST TENNESSEE.

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BY J. W. HOWELL.
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I received the last number of BEE WORLD on the 15th inst., and am still pleased with its light. As you referred my query to Mr. McLean, I hope he will answer through the WORLD.

I am well pleased with his writings and always read his pieces, (as well as many others) with much interest. He gives practical experience and general information on bee culture, which suits for new beginners. If more of our Southern bee-keepers, who writes for the WORLD, would give their practical experience, in the management of bees in the South, and not so much on wintering, as wintering bees in the South is easily managed by letting them go into winter quarters, with plenty of honey and bees, on their summer stands. Of course our Northern bee-keepers must notice closely the subject of wintering as it is a very

important matter with them, and by so doing we are all benefitted and will perhaps better understand the management of each section.

I see on page 130 of this month's BEE WORLD, H. Goodlander says, "the material from which a hive is made has a great bearing on the health of its occupants." I would be glad to know what is the best material from which to make our hives. We have an abundance of red gum and poplar here and can get pine by sending off for it. Will some of your writers please tell us which of these is best? I see on page 140 an article written by some one on summer feeding, who neither gives name nor place. Would it not pay us all to feed our bees in summer if such profits as that can be realized?

My bees are doing well considering the frosty mornings and cool windy days that we have had during this months. On the morning of the 17th inst., the mercury was at 26 above zero. My bees are not swarming as early this spring as they did last.

Peach fruit is all killed and we fear that poplar blooms are damaged which is our greatest and best honey resource.

Kenton Tenn., April, 27th, 1875.

We have used almost every kind of wood for bee hives, and find that hives made of good poplar and well painted gives us the best satisfaction of any we ever had.

We presume Uncle Harry will give us his views on wintering bees, as soon as convenient.

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After a person has been stung a few times, the pain and swelling is not so great as at first.

MY REPORT.

BY D. W. FLETCHER.

I promised in a former article to send you a report on wintering bees in this vicinity; the style of hives wintered in, where they wintered, and the condition they are in at present. I will commence at my own apiary: I had last fall, in good condition, fifty stocks of bees, some in frame and some in box hives, and have now at this time thirty-five poor, weak stocks. More than two-thirds of the bees have died from every hive, and those that are alive were the weakest last fall. Every hive I had contained from eight to twelve quarts of bees. After they had died, I took twelve quarts from one hive, and from several others eight quarts each. Those that died in front of the hive I gathered up and carried away.

Now you have the report of my apiary. The next one is located about $2\frac{1}{2}$ miles from me, on Salmon creek. The number it contained was fifty. It now contains forty-four, as fine colonies as can be seen at this season of the year. They were wintered on their summer stands, and occupy the old-fashioned, so called, Quinby hive, without frames, similar to the one described in his book, "Mysteries of Bee-Keeping." These hives all faced the east.

Next is an apiary $1\frac{1}{2}$ miles east of me, which contained last fall ninety-seven good stocks of bees, in the same style of hive, facing the east. I was at this apiary two weeks since, and sixty-five stocks had died up to that time, since which six more have been robbed. It was a sight to see the dead bees piled up in front of those

hives. I never saw anything that equaled it since the year the bee disease destroyed so many colonies.

The next apiary is located about seven miles from me, in a north-eastern direction, and contained last fall thirty good colonies, in box hives mostly, and now I believe there are but eleven poor, weak stocks remaining. Last fall all the apiaries mentioned were in fine condition, both as to stores and bees; and if ever things were ever more favorable (apparently) to insure their safe wintering, I never saw it.

Well, the question is, What killed so many? I think cold weather and long confinement was the greatest cause; and, still, if this was the cause, why one of the apiaries referred to above wintered so well? I would like to know how Ch. Dadant prepares his bees for out door wintering, especially the tops of them. If he would give his method to the readers of the BEE WORLD, it would be thankfully received I am sure.

Some say that the climate has more to do with successful wintering than anything else; and a person must learn to manage accordingly, and so forth. I presume this is often the case, yet I know that bees do not winter alike under the same treatment, and in the same climate. Sometimes bees winter remarkably well in almost any place, and perhaps the next winter half or two-thirds of them die.

I had a letter the other day from a friend in Vermont, who has been trying a great many kinds of hives, and has paid out a nice sum for the same. He writes me now that, for successful culture, taking all things into consideration, he preferred a hive twelve inches square inside, by fifteen deep,

without frames, but with cross bars running from front to rear. He claimed that bees winter better in such hives out of doors than any frame hive he ever used. He says all the advantages in upward ventilation are the same as frame hives. He also writes me that he has had swarms in shallow frame hives starve to death with honey in each end of the frame, and thinks that bees to winter well out of doors, had ought to have the stores above the cluster, instead of at the ends of the frames. Now some one else may think different; and in fact succeed better with a frame hive than with a cross bar hive. Some may succeed well with a shallow frame and others fail. Some succeed well with old fashioned box hives, standing out of doors, and no attention given them from fall till spring, yet they thrive and do well. And a great many other things I might mention if time and space would permit, but will defer them till some future time. I am pleased to hear of good success in both wintering and springing bees, but until successful wintering on summer stands is attained, it will be more or less shunned by a great many.

I hope some one will find out a successful method of out door wintering ere some other disease makes its appearance. With best wishes to Editors and all the readers of the BEE WORLD, I will close by hoping to hear from you one and all.

Lansingville Tompkins co., N. Y.

The mortality among bees has been very great in the North the past winter. As to your friend preferring a box hive to a frame hive, that can be no guide, for all the great bee-keepers of America use frame hives; and in the

NOTES AND QUERIES.

NOTES FROM COOSA CO., ALA.

But for the comfort in the old adage that "a bad beginning makes a good ending," I should certainly feel discouraged. The trouble with me is in getting a hive that suits me. There has, as yet, been but one movable comb hive introduced into this country, which I purchased, not knowing, at that time, of a better; but since reading bee journals, and becoming a little more enlightened on the subject, I am satisfied mine is greatly inferior, in many respects, to many others that are in use.

As to the kind I purchased, whoever buys it will get as sick of their bargain as I am. It cannot possibly be made at less expense than \$5.00 per hive, without painting. What I want is a plain, cheap hive, that has as little work about it as possible to answer the purpose.

My bee are quite busy now. I watched them to day bringing in their loads, and some of them were actually so heavily loaded that they would fall in front of the hives before reaching them.

After resting a few minutes they would rise and "try it again." Almost every one in the neighborhood lost the greater part of their bees this spring; many lost all, by neglecting to feed them a little before flowers became abundant.

By feeding mine I brought them through safely, and now they are having a gay time as the entire range is theirs, with but few bees to share the sweets with them. The study of the honey bee is to me the most interesting of the whole range of entomology, I enjoy it as a book open before me, by which the economy, order and ceaseless energy of these wonderful little purveyors are exhibited.

Nixburg, Ala.

—Our friend has the true bee-keeper's "grit;" and by another year we expect to get a report from her which will verify that old "adage," and which will show that a substantial footing has been obtained, even in the face of trouble and vexation. As usual, the study of the bee; its unceasing industry; its busy hum; and the many mysteries hovering over their daily toil,

South, where the moth miller is so plenty, we could not practice successful bee-culture without movable frames. Many have found it advisable to extract the honey from their hives late in the fall, and feed syrup, thus giving a food they knew would not cause dysentery. Again, it has proved advantageous to give the bees a fly at intervals of 2 to 4 weeks, either in a cold frame, an empty room, or out doors when warm enough do so and not chill them. See what our correspondents say of scattering straw in front of the hives on warm days, while flying.

Again, it is advisable to go through the hives every pleasant day and place the combs containing the honey next to the brood, so that they get it without going so far from the brood circle as to get chilled. Another precaution is to see that the combs are perforated at convenient distances, that the bees may go through them when in search of food, instead of around, thereby getting chilled, and perhaps never returning. We would take the boxes and honey boards out of the hives, and place a cloth quilt on the frames; if not a quilt, something else porous and warm, that would absorb moisture and keep them dry.

—o—

In placing hives in the bee yard, be sure a have them face the morning sun. Bees thus situated, leave the hive earlier for the field; and in the course of the season, this precaution makes a considerable difference with the honey yield. During the middle of the day, the hives should be protected from the sun's rays, as the heat becomes so intense at times as to render it difficult to manipulate the wax, and they are thus forced to remain idle.

has fascinated our correspondent, and every day new charms are added to her undertaking. These troubles tend to make us more cautious, and less liable to disaster in the end. To us, the greatest charm of any undertaking lies in the knowledge that our success depends upon a close vigilance, and untiring energy. We can better enjoy the fruits of our labor, when the process has been followed up with watchful eyes, and busy hands.

NOTES FROM CENTREVILLE, I. A.

Our bees are swarming; wife has captured seven swarms. Have examined hives and find our colonies well supplied with honey; and if not flooded by the Mississippi, I hope to get a large yield this season. I am doing all I can (in my way) to assist in building up our "Honey World."

N. JAY WOOSTER.

Centreville, March 30, 1875.

NOTES FROM LANSINGVILLE, N. Y.

I send you a report of how bees are doing; and to day the ground is covered with snow and is freezing some every night. Bees have worked some this spring on flowers, but not a sign of any natural pollen has been gathered up to this time and I think none will be gathered this month, something I never knew before. I have seen late springs but never since I have kept bees have I seen as cold, backward a spring as this. No pollen gathered in April is rather discouraging. What do you think? Bees to day with a few exceptions, are as bad off nearly as in the spring following the bee disease in this locality. If the cold weather had continued much longer it would have destroyed all the bees the same as the bee disease. The Apiary I referred to in my articles beats all in this locality. This Apiary does well every winter, while others dwindle away. We have had the most severe weather in this month in this locality I ever knew, so late in the season. Bee-keeping with me will play out in a few years at this rate.

D. W. FLETCHER.

April, 29, 1875

NOTES FROM SCRIVEN CO., GA.

As you ask your subscribers to give their experience in bee-culture, and I having the "Bee" somewhat on the brain about now, have concluded to tell mine. On the 4th Saturday in July, 1874 a friend of mine made a present of a common, old fashioned box hive, and on this same day I had a gentleman of this place transfer the bees and honey into one of his buckeye gums. The bees done finely through the winter on their summer stands and have been bringing in pollen and honey every fair day since latter part of January.

On the 16th of this month they sent out their first swarm and yesterday (28th) the 4th swarm all of which I have saved. The swarm yesterday had two queens; one was driven out of the gum a few minutes after I got the bees in the gum; the other remained. My bees are the common black or German bees, though they are a little more yellow and somewhat larger than the bees usually seen here. Bees do well here; our only trouble is the moth miller, which abounds here world without end. Can't you or some of your contributors tell us how to get rid of such a pest?

E. W. LANE.

Scarboro, Ga., April, 29, 1875.

—Pretty good for a new beginner; but the old swarm should not be allowed to swarm again this season. Let them make you some honey now, and keep them raising brood. That is your best preventative against the moth miller, also,—strong colonies—and this is a good reason, if we had no other, why they should be strong. In all our experience in bee-culture, we never had the moth destroy a strong colony; but this fact has not been our only reliance; we always carefully inspect every frame in each hive of our apiary, as we go through them to extract, examine brood, divide or transfer, and so are never troubled, even if the stocks are weak. We cannot impress too strongly upon the minds of our readers, the necessity of having strong stocks.

NOTES FROM PUTNAM CO., W. VA.

My bees have wintered well. As for the neighbors' don't know much about their bees, as they keep them in hollow logs and salt barrels.

How close can hives of different color be set to each other with safety? Can a place be overstocked with bees? C. M. NASH.

Buffalo, W. Va., April 5, 1875.

—Hives of different colors can be set as close as two feet; but we would prefer to have them farther apart, if room was plentiful, for several reasons: the queen is not so liable to enter the wrong hive when returning from her bridal trip; the bees are less inclined to quarrel; and there is more convenience in handling by the operator.

There is no part of our country that is liable to become overstocked, yet we would not advise the keeping of over 100 stands in one yard. That number is as many as can be conveniently tended, and the probability is that they would gather all the honey the flowers would yield in their range. But this fact should not deter the beekeeper from having more, if he desired them. A practical bee culturist could easily superintend the management of 500 or 1,000 stands, leaving minor points to the tender. But it takes an enterprising person, one who does not shrink from any difficulty, to successfully conduct such an enterprise.

—O—
Please give me the name of the buckwheat that is planted for bees; and where I can get it; and at what price. ISAAC A. WOOD.

Scarboro, Ga., April 24.

—On pages 105, and 326, March and October numbers of BEE WORLD for 1874, are exhaustive articles on the value of buckwheat, either as a

honey plant or farm crop. We presume if it was advertised by parties having it for sale, it would find ready purchasers. We can send the two numbers mentioned for 20 cents.

Of all plants we ever tried, buckwheat has the preference. It has the advantage of being an exterminator of weeds, when sown thickly; of being a good plant to sow with clover for seeding down (when it should be sown more sparingly—one peck per acre), as its luxuriant growth tends to shade the ground, thereby keeping it moist; of being a good plant to plow under where land is poor (and this can be done after the bees have had a chance to gather its sweets); of being a good crop to raise for the seed; and last, but not least, it secretes as much honey as any field plant we know of. From the many testimonials in their favor, we cannot overlook the merits of rape, esparcet, catnip, mustard and so forth, as honey producing plants, either; but all that makes the value of our favorite none the less.

—O—
I want a smoker that can be used without blowing with the mouth, and thereby have my eyes, nose and face full of it. Can you recommend one? J. M. SIMMONS.

Lauderdale, Miss., April 29.

—Use the Quinby smoker, by all means. We have used them since their introduction to the public, and would not be without them for twice their cost. Remit the price, \$1.60, to M. Quinby, St. Johnsville, N. Y., or to this office, and one will be sent, postage paid.

—O—
My bees have done tolerably through the winter; but honey is very scarce for them in the fields now, and they are thieving considerably, in consequence. D. F. HOUSMAN.

Paducah, Ky., April 5.

MOON'S BEE WORLD.

A. F. MOON & CO.,

Cor. Broad and Elm streets., Rome, Georgia.

MAY, 1875.

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THE PROSPECT FOR HONEY.

The spring has been a very wet one, in this, and many other portions of the South. White fruit blossoms were at the height of their fragrance, the rains and winds kept them from reaping the usual harvest vouchsafed by them. After they had passed away other flowers came in bloom, but frequent rain and high winds still kept them from the fields. The past ten days has been more favorable for gathering, however, and they are busy at work on white clover, which is blooming profusely. As a natural result of this backwardness, many stands have perished for want of sufficient stores to supply the young brood. During brood-rearing, bees are very heavily taxed to find sufficient forage; and unless they are watched, the result is apt to place the profits on the wrong side of your balance sheet. It may not be too late to

advise our readers to give their bees a close inspection, and if they are not doing well, feed them a syrup consisting of one pint water to four pounds sugar—just left on the stove long enough to boil—every evening until they are out of danger. Lay an old comb on top of the frames—if you have no feeder—and pour the syrup on it.

MOTH WORMS.

Many are still in doubt as to whether the eggs from the moth miller is destroyed by freezing. To a certain extent they are liable to injury from this cause, but not so greatly as would seem. We have taken glass boxes of honey, in the month of October, sealed them both water and air tight, set them away in the chamber, and in the May following had worms hatch in them. They must have been frozen solid for nearly three months. We have travelled in nearly every state in the Union north of the Ohio river, and have seen this process of freezing the egg to kill the germ of the moth worm tried over and over again, and have yet to see it prove a sure method. And we have correspondents who say the same thing.

When this worm is about four days old, its work can be very easily discovered by those that are familiar with their work. It is discernible by a fine white streak across the comb (in their track), which resembles, in appearance, flour. In a short time they weave their web, when they can be detected by the duller eyes.

We submit this to the editor of Bee Keepers Magazine, who, in a late number of that journal, advises bee-keepers to use combs without any further manipulations, if they only have been frozen!

SWARMING.

Bees will sometimes swarm at very unseasonable hours when the fever is strong upon them, or they have been held in check by bad weather, or the intervention of the bee-tender. We once heard a commotion in our apiary between the hours of 11 and 12 p. m., and on going to see the cause, saw a swarm issue from a hive that had been hived the day before; and not liking their quarters, they had proceeded to leave them, even at this unseasonable hour. We have seen such hives swarm before sunrise in the morning, or after in the evening. In fact when they have concluded to go, they are going, if the proper measures are not taken to stop them. In most cases an examination will discover two queens in the hive, in others the hive has a bad odor about it, or the queen has failed to go into the hive. Careful thought has always revealed to us the cause for most of the actions of these little fellows under such circumstances.

—o—

ENERGY OF THE ITALIAN BEE.

THE Italian bee seldom clusters on the outside of the hive before swarming, but, when ready, come forth without any warning. Persons having Italians should watch them closely in the swarming season. The black bees often lay out on the outside of the hive for two or three weeks before their final departure is taken, showing a lack of energy not wanting in the Italians.

—o—

THE Italians swarmed in this locality, this spring several weeks in advance of the blacks.

NO REDUCTION OF RATES TO DELEGATES.

We have to announce to our readers who intend attending the Georgia and Alabama Bee-Keepers Convention at Talladega, Ala., that the railroads have refused to grant half-fare tickets to visitors. We believe this is the first case where a railroad has refused to grant such a request, and cannot see sufficient cause for the refusal in the reason given. It should be the duty of such corporations to further the interests of any gathering for the public good, instead of denying assistance. The following is the Secretary's letter:

SECRETARY'S OFFICE,
BEE KEEPER'S ASSOCIATION, GA. & ALA. }
ROME, GA., MAY 1, 1875 }

EDITORS BEE WORLD:—I have made an effort to get the railroads to pass delegates to and from the approaching convention, at one fare. They decline to do so on the ground that similar applications have become so frequent, and so many undue advantages have been taken of their disposition to foster and aid all laudable and praiseworthy objects, that they have to forego the pleasure of granting those favors, for a short time at least. We cannot complain, for we know their will is good.

THOS. J. PERRY,
Secretary.

—o—

OUR readers are requested to send us brief notes from their apiaries this spring. We want to know the condition of the bees, kinds of plants they are gathering from, prospects for honey, and so forth, in every county the WORLD circulates in.

—o—

SEE notice of Southern Kentucky Bee-Keepers Convention, in another column. Will Bro. Allen send us a full report of their proceedings?

QUEENS.—We will send the **WORLD** one year, and a warranted tested queen for \$5.00. This offer cannot be continued long. The queen orders must be sent in promptly to secure them.

KÉUSCHKE BROS. send us their pamphlet on esparcet culture. We have not space to give any extracts, but our readers can secure a copy by addressing them at Berlin, Wis., and remitting the price, 10 cents.

MURPHY'S, AND J. W. WINDER'S circulars are received. Both have extractors for sale; the one, stationary can; the other, revolving. And right here we wish to speak in favor of extractors as a help to successful bee-culture. In the hight of the honey season good stocks often fill their hives before the honey is half gathered; and but for the extractor that would be all they would make. But by throwing out the honey, they are compelled to gather more, and thus a profit is made, instead of loss.

Notice to Bee Keepers.

Having accepted the position of Instructor in Apiculture at the East Tennessee, University and State Agricultural College, I respectfully notify bee-Keeper's that I have removed my bees to the college farm at Knoxville, Tenn., and will there continue the Apian business, as successor to Hamlin & Benton of Edgfield Junction, Tenn. Address.

FRANK BENTON, Knoxville Tenn.

Aparian Supplies.

We can furnish Honey Extractors geared for fifty dollars. Stocks of Italian Bees, purity and safe arrival guaranteed for Twenty Dollars. Italian Queens tested for Five Dollars. Bee Vails 75 cents. Rape Seed 25 cents per pound. White Clover 75 cents per pound. Golden Rod 25 cents per package; Alsike per pound, 60 cents; White Mustard per pound, 50 cents; Quinby Bee Smoker by mail One Dollar and Sixty cents. Address

A. F. MOON & CO.
Rome Georgia.

We send the **WORLD** one year, with Gleanings in Bee Culture, for \$2.25; or with American Bee Journal for \$3.00.

Southern Ky., Bee-Keepers Convention.

Southern Kentucky Bee Keepers convention meets at the residence of R. A. Alexander on the 19th inst, at Smiths Grove on the Louisville and Nashville railroad, Warren co., Ky. All interested in Bee-Keeping are invited to be present.

N. P. ALLEN.

Secretary.

\$5 TO \$20 per day. Agents wanted. All classes of working people of both sexes, young or old, make more money at work for us in their own localities, during their spare moments, or all the time, than at anything else. We offer employment that will pay handsomely for every hour's work. Full particulars, terms, &c., sent free. Send us your address at once. Don't delay. Now is the time. Don't look for work or business elsewhere, until you have learned what we offer. **G. STINSON & Co.,** Portland, *M* aine.

Our Club List.

We will send either of the following periodicals with the **WORLD** one year, including Chromo, on receipt of price annexed:

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American Agriculturist (and chromo, unmounted 10c. extra, mounted 25c.).....	2.75
Harper's Magazine, Bazaar or Weekly.....	5.00
New York Weekly Tribune.....	3.25
“ Semi-Weekly Tribune..	4.25
Rome Weekly Commercial.....	3.50
Illustrated Journal of Agriculture	2.75
Peter's Musical Monthly.....	3.75
Peterson's Ladies' National Magazine.....	3.15
New York Sun, Weekly.....	2.75
“ “ Semi-Weekly....	3.75
Fruit Recorder and Cottage Gardener.....	2.35
Gleanings in Bee-Culture.....	2.25
Phrenological Journal.....	3.75

These publications are all good. If any periodical is desired that is not on the list we can get it.

ADVERTISEMENTS.

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I will fill orders for pure Italian Queens bred from

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Roma, Ga.

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APIARY

Owing to the great increase of my apiary and the want of facilities to manage so large a number of stocks, I offer for sale during the coming season

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Dr. J. P. H. BROWN,
Augusta, Ga.

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