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## **Moon's bee world : a guide to bee-keepers. Vol 2, No 8 July, 1875**

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# MOON'S BEE WORLD,

—A GUIDE TO—

## BEE-KEEPERS.

VOLUME 2.

JULY, 1875.

NUMBER 8

### CORRESPONDENCE.

#### NOTES FROM MISSISSIPPI.

DR. J. M. SIMMONS.

EDITOR BEE WORLD:—I will give you a few lines from this section of the state of Mississippi. I find there still exists a very great difference of opinion respecting the proper size of frames, and the kind of hives to use. I, for one, am in favor of a frame 9x15, and a single story hive,—especially where the extractor is used—and to hold twenty frames and a division board whenever necessary.

I am using frames now 9x12 inside, and twenty-two frames to the hive, single story. In the spring, when the swarms are small, or when I put a new swarm into a hive, I put in about eleven frames and use the division board, and as they need room I move the board back and put in extra frames, or combs, and continue this until they fill the hive. Then I re-

move the board entirely and as soon as they fill up and need room, I either divide or extract, and make room for the queen and bees to deposit eggs and honey. At first I keep the brood nest in front, but after they fill the hives I move it to the back end, and keep all drone comb that I don't want for drones in the front part of the hive, where it is filled with honey. I prefer it for honey all the time if I could keep it out of the queen's way. I find it a hard matter with the single story hive to get worker combs built, especially. When supplies are plentiful they will build drone comb put it where you will, in center of brood nest or at either end; but if they are not gathering much you may put it almost anywhere and they will build worker comb.

I have had trouble this year in keeping drones out of my way. Not having worker comb enough, I had them build some combs but got an excess of drone combs, and I have to handle them carefully or I would get my hives



full of drones.

I am trying the tin rabbets, and like them very much; and think I would like Root's tin corners if not too expensive. Still, I would not mind the expense so much if they would enable us to have stronger and lighter frames.

My bees all came through the winter on summer stands safe, and all springed well, save one hive of common bees which would have died if I had not built them up with sheets of brood from other hives. I had five hives of Italian and one of common bees, from which I have extracted as follows: May 1st, 102 lbs.; May 14th, 152 lbs.; and June 11th, 171 lbs., making 425 lbs. After extracting the second time I divided and made five artificial swarms, making eleven, instead of six. I would have had twelve hives instead of eleven, but the second extracting having been delayed too long on account of cool weather, one of my best hives swarmed and went to the woods while I was extracting from another hive. If I had clipped her wings she would have been here now, and I would have been fifteen dollars better off in bees, and I cannot tell how much in honey, for there was a vast difference in that hive the second and third time extracting. You may believe the wings have fallen since then from both old and young queens and I intend to make it a rule here after to clip their wings just as soon as they commence laying, then I am sure of queens and bees. Notwithstanding it opposes the views of some of the most prominent apiarians, I never saw short-tailed horses, cows, sheep or dogs have progeny with short tails unless it was hereditary with the parents, then the mark holds

good. I do not believe in guess work about anything.

The weight of the honey extracted from my hives, was just as it came from the extractor, not counting caps or waste. One gallon weighs  $17\frac{1}{4}$  lbs., which makes it very thick, the less water the heavier the honey, or syrup of any kind.

I cannot tell how much I may get from my bees, as they are filling pretty fast, and I expect to sling it out as long as they make it, and feed on syrup for winter, believing it to be the best plan, though my bees wintered on natural stores last winter and did well.

There was great mortality all over our country last winter and spring. Some lost half, and some nearly all, the bees they had, and it has caused them to look around to see if there is no remedy. Some who ridiculed my frame hives are this year using them, and advising others to do so.

Try and get your contributors to give full names and deal in facts, not theories and conjectures.

*Lauderdale, Miss., June 26.*

—Our experience leads us to adopt a hive without division boards; and if friend Simmons' apiary ever gets to one hundred hives he will also want a different one. We find that there is too much to attend to, where such hives are used, and that the simpler the hive is the greater the returns from the money invested.

In the case of valuable queens we think it advisable to clip their wings, where dividing is not practiced. If their wings are clipped you can tell when they are superseded so much easier also.

What is your honey gathered from, that it should be so thick and heavy?



## FEEDING BEES.

In September, after the honey-gathering season was past, I deprived several of my stock hives of from three to five pounds of honeycomb each, and then fed to make up the weight. For twenty pounds, of which I deprived them in this way, I found it required twenty-five pounds of the food to restore the food; but as the value of the honey was 7.50, and the cost of food only \$1.75, there was a profit attached to the operation. The bees that were treated in this way have passed the winter, and appear as strong and vigorous as any other in the apiary.

Then, in October, I practiced a much more desperate course with two old rotten hives, damaged from exposure to a southern aspect, unfitting them to stand another winter, although all provisioned to do so.

I first fumigated the bees, letting them fall into a box fitted for the purpose; after this operation was completed, I removed the old hive in each case, and placed a new empty hive over them; the following morning they were clustering at the top of the hive, the same as a new swarm. My first idea was to return them the honey (32 pounds between the two), but having a greater demand than I could supply at that time, I was tempted to dispose of it.

And then, relying on my experience, gained from summer feeding, I resolved to experiment on these two destitute hives of bees, by feeding them. They gladly took the food, both night and day, and in three weeks had filled their new hives with white honeycomb, and sealed up sufficient food for their winter provision. On examining them this spring, I

found them as healthy and strong as any others, their combs still remaining a pure white color: this was from the low temperature of the hives during the winter. I sold the 32 pounds of honey for \$10, and the food I gave them cost \$3.75 for the two hives.

After the proofs I have given you, I feel fully justified in saying that bee-feeding is only partly understood, and, indeed, we can hardly conjecture the extent to which it may be practiced.

The olfactory nerves of the honey bee are of so delicate a nature that any kind of fumigation immediately produces something of a paralytic nature in their system, which for a time renders them as harmless as blue-bottle flies.

For this purpose I use a tin tube, such as schoolboys use for pea-shooters, one end being turned for two inches, and flattened, leaving a passage through; and, when I wish to perform any operation on my bees, I merely insert the flat end of my tube into the entrance of the hive; I then give them three or four good puffs of tobacco-smoke through the tube, and the bees will remain for several minutes perfectly under control, during which time you may do anything you wish with them, without the protection of gloves or bee dress.

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NOTES FROM LANSINGVILLE, N. Y.

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D. W. FLETCHER.

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FRIEND MOON:—Your patrons may like to know how bees are doing in this vicinity. Up to the present time they have barely made a living; and to-day there are many poor, weak stocks in a starving condition. Many colonies have deserted their hives this month, with brood and honey left in



their hives. I see a few drones in some hives, and I presume we will have a few swarms. Yet they will be scarce and late. This is a much poorer season than the one following the bee disease in this locality, nor can I remember as poor a season. In the first place many stocks became so reduced in numbers from the severe winter that it will require nearly the whole season to bring them back into good condition. Consequently there will be but few new swarms.

We are having a very cold summer, and vegetation looks pretty slim. The harvest will be the lightest one had for twenty years in this town. Last year at this time bees were swarming here, and we thought that a rather poor year for bees.

*Lansingville, N. Y., June 21.*

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#### LONG HIVES.

G. I. LEACH.

EDITORS BEE WORLD:—I like Dr. Brown's long hives, but do not exactly understand them. He says he uses from twenty to thirty Langstroth frames; and I would like to know how many tiers of frames he uses. Also what he suspends his frames on in the center of the hive. He says nothing about a division board during the honey season.

My experience in regard to the size of brood chambers differs very much from Doolittle's. I find the brood chamber of the Langstroth hive to be too small. I have hives that has had from twelve to fifteen frames of brood (regular Langstroth size) for two months. I use the two-story Langstroth hive, holding twenty-one frames. Some bee-keepers do not

want any brood in the top of the hive. My experience is that the hives that rear the most brood gather the most honey. The honey season here has been a rather poor one. We have had some honeydew, but it did not last long. We look for a good harvest this fall.

I thought I would give you a report from my apiary, but since reading Miss Saunders' report, I am going to take a back seat.

*Murfreesboro, Tenn., June 28.*

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#### NOTES FROM CHELBYVILLE, ILL.

J. W. JOHNSON.

DEAR BEE WORLD:—Your arrival in our little city on yesterday found us all alive and wide awake. The swarming fever had seized our bees, and "there was hurrying to and fro." The little wretches seemed determined to "get on a bender." I had one swarm that out-generalled me and went to—well, I do not know where. It came out, settled on a little tree, and I housed them in a new hive. In a few hours it was under, instead of in the hive as they ought to have been. I put them in another new, clean hive, in an hour they were on the side of it. Let them remain there over night, took a frame of brood from another hive, and put them in again. All went "merry as a marriage bell" for three hours, when they arose sublimely into open space and left for parts unknown. I stood by and saw the whole performance. I do not believe a Modoc Indian could have stayed their "upward and onward flight." I could almost fancy that I could hear them sing that old camp-meeting chorus, "Oh, hinder me not," as they shook the dust from

their feet; and as I stood gazing after the fugitives I felt that my loss could not be much gain to them. They were beautiful "yaller gals," and may do something for their country in improving the blood of their aboriginee kindred.

There are no Italians in the neighborhood except mine. But I hived a colony for a neighbor lady of mine the other day, and judge of my astonishment in finding them hybrids. I questioned the lady and she told me they came out of an old black stand in the yard, which I do not doubt. Now are the native bees going to run into the superior family of bees? I hope so.

Now about your question as to how I ventilate in winter. On the front of the hive I have one—sometimes two—inch auger holes, which I leave partly open during winter. These holes are as near the center of the hive from top to bottom as may be. One hole of this size left half uncovered is all that the bees need in winter. I have never lost bees in winter, nor had diseased bees, but once, and then I departed from common sense, and followed the unwise and suicidal notion of housing bees. The bees die more or less during winter, and if left in open air most of the dead bees are found outside of the hive, and create no foul air. But if in a cellar or house, though only an old barn it may be, the bee dies in the hive. Hence, dysentery, cholera and so forth, arises from the stench thus created.

It is a poor season, thus far, for honey: too wet. Plenty of bloom, but little nectar.

*Shelbyville, Ill., June 24.*

#### BEE-KEEPING IN WISE CO., TEXAS.

N. STONE.

MR. EDITOR:—I am indebted to my worthy friend, Dr. Jewell Davis of Charleston, Ill., for two copies of the BEE WORLD, which I think is by far the best paper I ever saw on bee-culture.

The bee-keepers here are using the common box hive, with the exception of some few who have the hollow log. After our bees are put in the box, or gum, as the case may be, they are set away in fence corners, where they remain unmolested until robbing time, which is about the 1st of July. They get from one to four gallons from each hive, and they are then left to the mercies of the moth worm. As a general rule about one third of the colonies are destroyed by the 1st of December following, and about one-half of the remainder die out during the winter from neglect and starvation. There are some few exceptions to this rule, though there is not a scientific bee-keeper in this county, and as to patent movable frame hives, they would be looked upon like the curl in the pig's tail,—more for ornament than use.

It is my opinion that, with proper care and attention, bee-keeping could be made a profitable business in this country. The mildness of the climate, and the abundance of wild flowers, with the amount of honey gathered in a short time, goes to prove what could be done if men would go at it on the right principle.

I have never known of an instance of a crop being sown or planted expressly for bees since I have been here, which has been 17 years. Yet I have seen as good buckwheat growing



in an adjoining county to this as I ever saw grow anywhere.

I have never seen any of the different varieties of the clover tried here, and I think it doubtful whether it would stand the severe drouth this country is subject to.

I think bees multiply faster here than they do in Illinois. Wild bees are very numerous here in places, and nearly always go into the trees near the ground.

Our bees commenced gathering honey this year about the 1st of March, and swarming commenced about the 10th of May. At the present time every hive seems to be well filled from top to bottom.

Any person who wishes to engage in bee culture, and who possesses a small capital and the necessary knowledge, could do well in this part of Texas. If there are any such who wish information in regard to this section of country, let them write to me and I will aid them to the best of my ability. Our climate is mild and healthy; our lands cheap and tolerably productive; our society is good—for a newly settled country. What we need here is, industrious, enterprising, honest settlers. And let their profession be what it will (except it be a lawyer's, we have too many of them already,) they can do well.

In conclusion, let me say to you, I am going to see what can be done in the way of getting up a club for the BEE WORLD. I think you are publishing one of the best bee journals in the United States.

*Decatur, Texas, June 24.*

—Thank you for your good opinion. It is every Southern bee-keeper's duty to support his home paper, if it is a

good one. And we have yet to learn that the BEE WORLD is not worth its subscription price. From the great adaptability of the South to the wants of the honey bee, we safely say that in a few years hence bee-keeping will be one of the most important branches of industry pursued by our people. It only requires prudence and energy to make even a very small outlay wonderfully remunerative. Write us any bee items you think will prove interesting to bee-keepers.

—o—  
SCRAPS FROM ILLINOIS.

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WILL. M. KELLOGG.  
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This has not been a very favorable spring for bees, having had a great deal of cool, rainy weather. Since flowers began to bloom bees have gathered enough to keep a splendid lot of brood going, with but little besides. Three of my queens have been supplying brood for all five of my stocks, two having been queenless since March 20th, till lately one has got a laying queen, and the other capped cells ready to hatch. They have had two or three queens each. Some of them would lay a few eggs and then stop entirely, and the bees would proceed to raise more queen cells. And some would not get fertilized, although I sent to T. G. McGaw, Monmouth, Ill., and got a box of drones and drone larvæ, and later have plenty of my own. Have had too much cool weather for successful queen raising.

I have taken eight pounds new honey. I want you to keep Anna Saunders' report in another part of the office or it will absorb all I have by capillary attraction. Miss Anna does not tell us how many stocks she has to ex-



tract from. Wish we could move some of that honey harvest up North. But never mind; our turn will come next September.

White clover, late raspberries, mustard and so forth are in full bloom. Basswood and heartsease will soon be in bloom, but I am afraid we are going to have bad weather for it. As I write, the pleasant and noble looking faces of the men, women and children bee-keepers of "Novice's" medley are looking down on me. Among them I see several who have folded the tired fingers that will never more handle the bees they loved so well. The last one to go, M. Quinby, the well-known and beloved bee-keeper of St. Johnsville, N. Y. It gave me a thrill of pained regret when I saw his death announced in the weekly paper.

If it does not look too much like an advertisement I would like to advise all bee-keepers to send \$1 to A. I. Root & Co., Medina, O., for his photograph medley of American bee-keepers. I know they will never regret it.

#### HONEY DEW.

Friends Bryant and others speak of honey dew. So far I have been a very unfortunate mortal, never having seen a drop of it, though I live among the trees. Why is it that some localities have so much of it and others none at all?

Friend Johnson is very liberal in giving away his journals; more so, I am afraid, than I am, for I like to keep mine and read them over again and again. I have nearly all the bee journals that have been published in the United States, from the beginning of their existence. Have a complete set of the American Bee Journal that it would take a deal of money to buy, if I could not get another. Also a full

set of the North American and BEE WORLD, which is very valuable.

The average weight of our honey is a few ounces over 12 lbs. per gallon.

*Oneida, Ill., June 27.*

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#### REVIEW.

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BY DR. JEWELL DAVIS.

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MR. EDITOR:—Friend Parker suggests that cypress lumber is useful to make lumber for bee hives, and I see that you, Mr. Editor, confirm the notion. Well, so let it be. He speaks of the great honey resources of North Carolina.

Friend Brown expresses his preference for the long hive instead of the two story, if the extractor is to be used. And this certainly is wise if the honey is to be extracted from the lower story, since it would be more convenient; and since, also, the queen has a tendency to advance her brood nest to the front of the hive instead of upward and backward. To prevent swarming he advises the brood nest being pushed backward by moving the combs of brood rearward so as to admit of empty combs in front, for the queen to fill with eggs; but for the spring management to keep the brood nest in front. New beginners should notice this particular as it is full of meaning.

Friend Argo, like all the world northward, has had winter to linger in the lap of spring; and in Lowell, Ky., until the 19th of May, at which date his bees were briskly at work on white clover. He informs us that he will not go into the dollar queen business yet, so we need not send for such inferior queens to him. He seems glad he did not use his extractor too freely—to the loss of his bees—being ad-



monished by a timely weather warning to desist. I hope he will obtain his good season for honey.

Friend Bryant says it is quite a trial to read the varied articles of the BEE WORLD, and hence he devours its contents. It seems unfortunate that his bees should be annoyed by the sticky secretion, or excretion, of milk weed growing in his section of the world. He only counts upon his locality as being second-rate for bees.

Friend Johnson thinks Dr. Davis misunderstood him. It is possible, and we will stand corrected. His remark in regard to fruit bloom is correct for our locality; but not so with the white clover, for we have an abundant crop of it, larger, perhaps, than for years.

Friend Howell seems to change his notion about the discouraging prospects of spring. Well, I suppose he has no objection to his hives being laden with honey.

Friend Wise permit me to say for the editor that we like to have the bee news from your part of Texas. Glad to hear your bees are doing well, and that you are preparing to Italianize your bees.

Friend McLean replies to Howell about transferring bees. He now says his fears were fully realized regarding the cold spring, having to wait for the linden bloom before he can receive a share in the honey crop.

Mary B. I am glad you have concluded to write for the BEE WORLD. I trust we shall hear from you often, and that you will gain the information you are seeking through the journal.

Friend Devitte gives us a full expose of the honey resources of Bartow county, Ga. Closing with an exhibit of the proceeds of his apiary.

Anna Saunders also gives us a good account from Woodville, Miss.

I notice, Mr. Editor, that you are calling on us to hurry up with our communications. It seems we are all getting tardy. I am writing this amid the bustle of swarming bees, having no less than four swarms to hive while writing this.

*Charleston, Ill., June, 1875.*

—Well done, doctor. We don't believe you would neglect the BEE WORLD if you were sick in bed. Yes, we would like to have our correspondents write "often and early," an act which would save us from many vexatious delays. We want the WORLD to represent the advantages, or disadvantages, of bee-keeping in all portions of the United States. It takes such friends as you to help us to that end. But our readers must not think the doctor is the only one who is doing such good service. We have to tender our thanks to a great many kind friends who think a little time thus spent is spent in a good cause. Long may they wave!

—O—

ANOTHER BIG REPORT—WHICH WILL  
GET IT, MISSISSIPPI, OR  
LOUISIANA?

We always supposed California was destined to be without a rival in that branch of industry relating to the production of honey. But we are finding that we have honey, and easy to obtain, right at our own doors, so to speak. Last month Anna Saunders threw the readers of the BEE WORLD buzzing with wonder at the way her bees were bringing in honey, and the business-like way she had of taking care of it. Now here comes another to share her fame:



MR EDITOR:—I give you the following, as the result of the labors in my apiary up to date. I have fifteen and a half barrels of choice honey, and will have over twenty before this appears in the WORLD. If the season is fair I will get fifty barrels. My bees commenced swarming March 20th. I have a first swarm of this season which has already given a swarm and this last has filled its hive and been extracted. I have one colony that was divided April 12th, and had to raise its queen, that has given me, between April 14th and June 9th, sixteen gallons of white clover honey. CHAS. PARLANGE.

*Pointe Coupee, June 13, 1875.*

Whew! At the common estimate his honey will average twelve pounds to the gallon; at thirty-two gallons to the barrel, friend Parlange will get over 19,000 lbs. of honey, if he comes up to his anticipations. If he gets but 10,000 lbs. (and he has not far from that amount already) he will have obtained the largest yield ever reported in the South. We believe that Mr. Parlange has nearly, if not quite, 300 hives, which would lower the average yield per hive below that obtained by Miss Saunders.

—o—

RATIONAL BEE-CULTURE, PURSUED  
WITH FIXED COMB, FOR THE CON-  
VENIENCE OF THOSE WHO USE  
COUNTRY HIVES.

[Translated for the BEE WORLD, from the May number of *L'Apicoltore*, a journal of bee-culture, published in Milan, Italy.]

ADVICE TO BEE-CTLTURISTS.

Statistics clearly demonstrates the fact that in bee-culture movable combs assure the better preservation and greater prosperity of the bees, and at the same time, serve to obtain more

abundant products; yet the same testimony also proclaims that in Italy and elsewhere the number of hives with fixed combs far exceeds the number of hives with movable comb. And though the excellence and utility of the method with movable is an admitted and proven fact, some account must be taken of the culture of bees with fixed comb; and that it may not be labor in vain to try to aid the many bee-culturists, who prefer the old-fashioned country-hives, in attempting to instruct them by simple conversations, in the principal rules under which they may regulate and govern their hives, let it be understood, that I do not accept as regular bee-culturists those empiricists who pretend to profit by insect labor and industry, without giving themselves any trouble, who put themselves to no expense, and who, idle themselves, expect to appropriate the products of the hives, murdering the laboring colony, it may be, for the convenience of robbing them. To these, who certainly are not bee-culturists, but bee-destroyers, I have but one remark to make; and that is, to keep in mind that without an apprenticeship, without labor, without some little pecuniary means, no useful undertaking is possible; and that a life of lazy, neglectful indifference can lead only to privation and misery; according to the mournful testimony of individuals, families and relations.

CONVERSATION FIRST.

CONCERNING BEE-CULTURE.

Flowers, and also the leaves of large trees, under favorable conditions of the heat and moisture of the soil, give forth a sweet juice called nectar, which evaporates in the air, and is dispersed in the atmosphere, if not gathered by provident insects, who are nourished



thereby. Among these insects, the honey-bee merits special attention; because not only do they feed upon this nectar, but they store it up, against the dead season, or winter, in their dwelling. The consideration of these facts has given rise to the industry called bee-culture. The governing of hives without any rule, confiding to chance the fate of the insect and its products; and what is worse, sometimes killing the laborers in order to appropriate the fruit of their toil, is not bee-culture, does not deserve the name of an industry, but is an erroneous and absurd practice, cruel to the beneficent insect, and little useful to the destroyer of the hive, who, greedy for the present good alone, does not concern himself about the profit that he might secure through the laborious undertaking of new swarms. On the contrary, the custom of rearing and tending bees in conformity with their instincts, favoring their labor, and so developing it as to obtain a certain and copious product:—this is true bee-culture, and a meritorious industry, rightly designated as rational. Among the few obvious reflections on this subject, will readily be comprehended the importance of bee-culture, using, as it were, the gratuitous product of flowers, and creating an industry and a commerce in wax and honey by no means contemptible, as shown by the statistics of Italy and other countries. Thus we see the necessity of a rational bee-culture; since it may be turned to profitable account.

Bee-culture, deriving its support from flowering fields, enters into, and forms a part of agriculture; and, therefore, like agriculture, is subject to the vicissitudes of the season, demands care and attention, and exacts

some outlay of money, though very little in proportion to its utility. These conditions, inherent by nature in bee-culture, justify the imputation of unreasonableness charged upon those bee-culturists who claim always to gather from their hives a good product, with little expense, and without care or inconvenience. For in order that the culture of bees may be profitable, it is necessary to secure favorable conditions of place and season, and to pursue it with knowledge, care, diligence, and means proportioned to the hopes for result.

#### CONVERSATION SECOND.

##### THE BEE FAMILY, AND THEIR INSTINCTS.

First of all, learn the theory; otherwise you must remain all your life but a mediocre practitioner. Accepting this advice of Baron Berlepsch without question, because it is just and wise, I will first undertake to make known the bee family, and their leading instincts.

##### § 1. CONFORMATION OF THE BEE.

1. Bees, the well-known insects of the class of wasps and hornets, fly among flowers, gather honey, bear it to their hives, or habitations, and not only feed thereon, but store and preserve it as a provision for winter; since in cold weather they do not become lethargic, and have need of nutriment, in order to live until the return of spring, when they resume their labors.

Bees, like ants, wasps, and similar insects, live in a family composed of a single mother, called therefore the mistress or queen of the workers; the large number of which compose the colony, and the few males or drones, during the time of swarming.

In order to manage bees well, and practice a useful bee-culture, it is nec-



essary to understand this valuable insect, and to be able to distinguish the different individuals that compose the family, and to know their instincts and habits.

II. The bee has a graceful form, with the head, breast, and belly well distinguished.

The head is the forepart of the body; and in it must be noted five eyes: two at the side, called complex, because formed of thousands of little lenses, six-sided, or hexagon; heart-shaped and immovable these eyes are. The three others are upon the top of the head, disposed in a triangle, formed of a single lens, and therefore called single eyes. Two articulated or jointed antennæ or horns, the size of a thread, fixed upon the head, are perhaps the seat of the senses; they are certainly the organs of touch. The mouth, cleft from top to bottom, opens like pincers, or tweezers, and is furnished with two appendages called feelers. The mouth contains the tongue, which is folded back not when in use; but when it licks up the honey, it moves between the feelers and the two projecting jaws, as within a tube, to transfer to the stomach the saccharine drop upon the point.

The middle portion of the bee called the breast or thorax, is formed of three rings, of which the middle one extends itself over the back like a little shield, and has on each side two membranous wings, which, when spread, hitch together, forming one wing. Beneath are six little claws, two in front, two in the middle, somewhat longer than those in front, and two behind, the longest of all. These claws are terminated by little prehensile hooks, which enable the insect to attach itself to smooth and slippery places.

The belly, or abdomen, the hinder part of the body, has the shape of an elongated oval, and is formed of four bundles, so to speak, like half-rings, dark, and of a hard texture, united by one membrane, and overlapping each other on the margins.

The whole body is covered with a fine and thick down, of a clear, grayish color, when the bee is young, and dark in age, because of the absence of hair.

III. The bee has two stomachs. The first stomach is a tube, which from the bottom of the tongue is prolonged through the breast, and under the first of the abdominal rings, enlarging in the form of a sack. This is a receptacle for honey. The second stomach, immediately back of this, is the true stomach that digests the food. The intestine is behind this stomach, and ends at the anal aperture.

Along the back of the bee, is seen a channel or dorsal tube, as in the silk-worm. This performs the functions of a heart, contracting and expanding, to serve the circulation of the blood, which in the bee is colorless and transparent.

The bee does not breathe through lungs like man, but by means of wind-pipes, or tubes, that penetrate the body, and are in immediate contact, except at the sides and the two posterior rings of the breast, and of the six abdominal rings, as may be clearly seen in the silk-worm. This mode of breathing, common to all insects, places bees among the cold-blooded creatures. Yet by the functions of breathing and digestion, the bee produces heat, which may be felt within the hives.

The bee has five perfect senses. Sight, which is strong except in the twilight. Hearing acute, which warns



them of the buzzing and other repressive noises of the colony. Smell fine, by which they scent honey, and discover their queen, when she is at a distance. Taste delicate. Touch exquisite, disseminated over the whole body, and especially in the antennæ, taking cognizance of the slightest impression.

Bees are gifted with a robust physical constitution, and great muscular strength. Thus they easily sustain themselves when grappled together, and drag out of their hives, transporting by flight, their dead, and other objectionable bodies. Especially are they strong to fly through the open country, vigorously cleaving the air, and overcoming impetuous currents; and only checking, or curbing, their flight as they near their hives, they alight like the gentlest breeze.

IV. In Italy is only one kind of bee; the Ligusticee or Italian bee, large, with abdominal rings, of a fine orange yellow color. The variety to be met with in some places does not constitute a different race, but is simply a deterioration of the Italian bee, resulting from climate, from situation, and still more from a too long protracted consanguinity; a variety not to be confounded with the German bee, which is small and very black. The genuine Italian race have individuals comprising the colony, that is, the queen, the workers, and the drones, large with a clear color, and very distinct yellow rings.

It is important to preserve this fine race in its purity, by choice crossings, for the profitable commerce with foreign countries, where the Italian bee is in demand on account of its greater activity and productiveness.

#### §. THE MOTHER BEE OR QUEEN.

I. The mother, or queen, is a female bee, like the workers, but completely developed and fitted for the purpose of reproduction. She may be easily recognized among all the other bees, being larger and longer, with a belly largely developed, covered only half way by the wings, and the long claws rounder behind. Within the large abdomen are two ovaries or cells for eggs, from which are born the three sorts of individuals comprising the colony; and at the extremity is the sting, flexible, and a little bent against the resisting belly. This sting she uses for defense only when rudely molested, but she plies against any rival queens that may be found in the hive.

II. From an ordinary fruitful egg, or even from the grub of a working bee, reared in a large cell called a royal cell, and fed always with nutritious food is born the queen, for thus she grows and is developed perfectly.

And this is the way in which the queen is born and developed in the royal cell. The egg is laid, which has the form of a crooked white thread. After three days, the little grub called a maggot, white and crooked, which is immersed in the pap-like nutriment furnished by the bees, feeds for about five days and a half. When it ceases to eat, it extends itself along the cell, with the head down, which is attached by a drop of glue, and it is thus shut, or sealed into the cell with a cover or lid. Here it spins a cocoon like the silk-worm, but does not succeed in turning about the any but the fore part of its belly, on account of the great length of its abdomen, and it is transformed into a chrysallis in about three days and sixteen hours. Then she comes out a perfect insect in about



four days and eight hours, and cutting the lid of the cell with her upper mandibles, from which sharp teeth project, she issues a perfect female bee or queen in sixteen days and a half, or seventeen days from that on which the egg was deposited; or in thirteen days and a half, or fourteen days after the grub was enclosed, according to the temperature of the season and the hive.—Flaminio Barbieri, in *L'Apicoltore* for May.

(To be continued.)

#### ANOTHER VOICE FROM MISSISSIPPI.

MARY BAKER.

MR. A. F. MOON:—The BEE WORLD came safely to hand a few days since, and I find, upon examination, that you have had to resort to other sources than correspondence, to fill its pages. This may suit some of your readers, but for myself, I would greatly prefer to read the experience of our Southern bee-keepers. I feel that it is our duty to write our views and experiences for publication, and, by so doing, we will not only help ourselves, but the editor also. The good Book tells us that he that knoweth his duty and doeth it not, shall be beaten with many stripes. Then let one and all try to do their duty.

I see on page 180, June number of WORLD, that T. B. Parker wants to know if any one has tried cypress lumber for making hives, and with what success. We do not use anything else here, and think it the best material we can get for the country. We use it for hives and frames also. We had empty hives stand in the sun all last summer, and they did not warp. It is a very easy wood to work, I find,

having helped husband make frames several times.

We had in May a very fine honey dew, just before the poplar gave out. It was so plentiful in the forest that the leaves of the trees dripped with it.

There are very few bees kept in this country—perhaps twenty persons in a large area—and nearly all are in the old box, or log, hive. I do not think this state of affairs will remain long, for a great many have been here to see our mode of keeping them, and they all express themselves dissatisfied with the old method, and evince a desire to adopt a newer and better.

There seems to be a scarcity of forage at the present time for our bees. Shortly after the honeydew fell we had two heavy rains, which destroyed that source for honey. They work splendidly on buckwheat early in the forenoon, but after 12 o'clock the most of them seem to be idle. Our buckwheat is very fine, about three feet high, and began to bloom within two weeks after it was sown. The majority of our colonies are very strong. Stopped swarming about the time the poplar gave out. I said in my last article that we had 24 swarms when spring opened. We now have 46, after giving away three, and losing five or six that went to the woods. We have a few that the moths are working at—this year's swarms. I think that it is because we put them in old hives that bees had died in last year. We cleaned the hives too, but I can think of no other cause for their being there. I would like to know if any one has ever tried putting such hives and frames under water. Will that destroy the eggs? I know it will destroy the moth, and the egg will not hatch out in the water, for I kept some comb I intended



to make into wax, a few days in water, and the moths died. But I have not tried the comb to see if any moths would ever hatch after being in water for several days.

We have the brown, or gray, bee. I have never heard of any Italians in our country. When is the best time to Italianize? The bee that we have here is larger and easier to handle than the black bee. A neighbor told me a few days since that he had found a tree with the largest and tamest bees in it he ever saw; and that they were yellow. If there are any Italians with in twenty-five miles of here I do not know it.

We have extracted forty gallons of honey, and have given away, sold and eaten, at least 500 lbs. in the comb. We have taken out honey for the table ever since the first of February, but the first was fall honey. The new honey began coming in about April 15th. We have not taken any honey in three weeks, although the hives have been ready for two weeks. I intended to rob mine, and if I did well, to try husband's, as he had not the time to do it himself. So I went to work, but, to my great disappointment, when I got to the third hive I was completely broken down, and so concluded to lose the honey, rather than my health. I could take it from the hive well enough, but could not carry it to the extractor.

*Hernando, Miss., April 5.*

—You can Italianize bees any time that it is not too cold for them to work; the earlier in the season the queen is introduced, the better. You should have a boy to help you in your apiary. We hope to be able to supply all our readers with buckwheat next year, that want it. We would like all

our readers to give their experience in raising buckwheat for honey, that it may become more generally known.

The eggs of the moth are best destroyed by exposing them to the fumes of ignited sulphur.

JOTTINGS—DOLLAR QUEENS—HONEY HOUSE, &C.

W. F. STANDEFER.

MR. EDITOR:—This is a busy time, but fearing that you might be scarce of notes I send you an item, and ask you a question also.

I am delighted to read in the WORLD so many cheering reports of the honey resources of the South, although some have said that there is neither honey nor flowers here. I hope to hear of the successes of many more bee-keepers yet. I have only extracted an average of about 50 lbs. per colony. I use the Langstroth frame in simplicity hive. I hope to raise the average to 100, or more, pounds per hive. I find the Italians far superior to the black bees as honey gatherers, and in protecting their combs from moths; even when crossed on black bees until the yellow bands disappear. I am also glad to see so many offering dollar queens, as all can buy at that price. I have long opposed the dollar queen business, because it gave breeders a chance to sell worthless queens. But two year's experience breeding and selling tested queens to beginners has changed my mind. I now think the dollar queens far the cheapest for beginners to buy. If they kill it they have lost but a dollar. If they succeed in introducing it, it will usually be worth much more to them than the dollar, though it should be a hybrid.



My largest yield of honey from one colony for three years has been from a Hybrid. I have taken from it to the present time, extracted honey to the amount of nearly 250 lbs.

I can not see the need of winter quarters or rye-meal here for bees; but we certainly need a honey house; and as I must build one I ask your advice. My house is on one foot abutments, or pillars, and I think a cellar might be the best and cheapest room I could build. I can use short skids to roll honey barrels out, with longer ones to roll them into a wagon by. This room I can use for extracting and storing honey in, and for transferring, and so forth. Perhaps ants would not be so troublesome in a cellar, but I find them to be my greatest trouble, both to honey and bees. I have found nothing that will kill them, or drive them away, except boiling water and diluted carboic acid.

It is strange that hundreds of people yet insist that honey is unhealthy. And many that have called on me say they dare not eat it; but I insist that honey eaten moderately never yet made any one sick. They ate and not one has been made sick by it. I believe that there is as much reason in eating cobs with roasting ears as the wax with honey.

I am so elated at my experiments with buckwheat in the Sunny South that I wish to sail my hat and shout Eureka! I had oats last year in the same field with corn and peas, and after reaping the oats I plowed twice a rich bottom and sowed in buckwheat. The yield was enormous; and to my surprise the pigs and stock left the pea field and stayed in the buckwheat patch until the last vestige of grain and stalks was eaten up. Now,

what elates me so, is the thought of fat cows, rich butter, buckwheat cakes and luscious honey, and all cheaper than the cheapest.

*Dry Grove, Miss., June 24.*

—We would not advise building a honey house under your dwelling. It would be unhandy, and besides, the bees would be too plentiful for comfort to the inmates of the house. A cheap frame ten or twelve feet square could be built in one corner of your yard, in the shade of some friendly tree perhaps, and you would find it convenient and not very expensive. If any one has a good design, that will answer all the purposes of a desirable, yet cheap, house, we will be glad to publish it.

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#### SKETCHES FROM TENNESSEE.

BY S. D. MCLEAN.

#### ARE WE INTERESTED?

Is there not a want of interest taken in the science of apiculture among us? Are we not, as a class representing one of the industrial pursuits of the country, lagging in interest? Are we keeping pace with the other industries of the country? Are we progressing as we should? Are we seeking to light the pathway of the new beginner? Or are we acting from selfish motives in withholding the light lest others profit by our experience?

These are questions that every beekeeper should consider. We all desired light in the beginning; shall we withhold from our fellows what we so much desired? There should be more interest taken in the fascinating pursuit of apiculture. The BEE WORLD, being a medium of communication, should be more liberally supported by contributions from our practical bee-



men, without the editor having to solicit the same. He gives all a chance to aid their fellow bee-keepers, by giving through its columns their successes and reverses. Will they do so, and thus aid in the noble work?

#### MISS ANNA'S SUCCESS.

We congratulate Miss Anna Saunders in her great success as an apiculturist. Occasionally one must rise above all others in the successful management of bees, and win laurels that all might emulate, but which few attain. At present Miss Anna is uppermost, and may justly be styled the queen bee-keeper of the South. May her success continue.

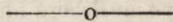
#### APIARY FOR JULY.

The limpid nectar of the linden continues to flow, and the work in the apiary for a great part of this month will consist in taking and storing the same. How cheering to the apiarian, after so great a dearth, to see the rush from the hives at the first peep of day, and hear the hum of millions of workers filling the air with their melody as they pass to and fro; and see them come home so heavily laden that they can scarcely make the entrance to their hives. Although each individual burden is but a drop, yet each drop fills a space. A continued dropping soon fills a vessel of considerable capacity, and when full it will contain no more. To collect more drops the vessel should be emptied of its contents to fill again. So with bee keeping.

*Culleoka, Tenn., June 30*

—To your remarks on the interest which should be taken by bee-keepers to insure success, we say Amen. Nor can the work of publishing be as pleasant where the interest has to be kept up by frequent reminders to his pat-

rons of their duty to their journal. But the present is a time of hurry and excitement with our friends, and we presume many do not find time to write.



#### BEE-KEEPING IN MINNESOTA.

[The following letter has been sent us for publication by R. M. Argo, who says: Friend Moon: I hate to be out of the BEE WORLD a single month, but my time is so much taken just now as to keep me out, this month, at least. I enclose you a letter from the far North, where the burden of bees is the wintering.]

R. M. ARGO, Esq.:—Your postal of 17th inst. is received. I am glad to hear from you, and that your bees have wintered well. I started from Kentucky with four stocks of bees; the railroad smashed up and destroyed the best one, and the other three were in such a wretched condition that I had them put together, and was then doubtful for a month whether they would survive. They finally increased, became quite strong, and filled the hive with honey. But, what I never saw before, the queen deposited no eggs in drone cells, and there was not a drone raised during the summer. As I was reduced to a single hive, I had some anxiety as to how I should get them through the winter. I put them into my cellar about the last of Nov., or first of Dec. I covered them with old carpets, leaving the holes in the honey board open. I thought my cellar could not freeze; but mercy! all my vegetables froze as hard as rocks. The hive was a double Langstroth, with the frames removed from the upper story. I lifted up the cover occasionally to see how it looked in



there. I saw the frost accumulating until the vacant space above the carpet was nearly filled with frost crystals. But, on tapping gently on the hive, I received that kind of roaring response which indicates so well to the ear of the practical bee-keeper, strength and comfort within. So I let them alone until the cold weather broke in March. Then I brought them up into the kitchen and gave them a chance to fly, and looked into the hive to see what condition they were in. I found the sides and ends of the hive, and the outside frames covered with solid ice. The ends of the frames were frozen to the hive, and some of them frozen together. I had to heat up the room and let the hive stand for some time before the ice softened sufficiently to let the frames be taken out. But I never saw bees look better in the spring. They had consumed very little honey, there were but few dead, and in two or three combs they had brood in all stages. I was delighted, and was only sorry that I had touched them. However, I changed them into a clean, dry, hive, covered them with dry rags, and put them back into the cellar. In a few days I discovered that they were a little uneasy, and gave them water, which seemed to quiet them. The first day that was warm enough for them to fly out of doors I set them out, and they are now doing well. D. BURBANK.

*Pelican Lake, Minn., April 23.*

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#### STARTING QUEEN CELLS.

D. A. PIKE.

FRIEND MOON:—I will try and give your readers a few hints on starting queen cells, as I think the subject has been neglected very much. I also do

it with the hope that I may draw out some more able writer than myself.

My method of getting good large queen cells is to take an empty hive, take all the racks out, and put in one empty one of empty comb. Go to the hive you wish to raise queens from, and select two frames with plenty of eggs in them just laid, and take a sharp penknife and shave the cells off below these eggs. Put the two racks in your hive with all the bees in the combs. Put in two more empty racks with empty comb, and put in a division board. Move a strong colony away from its stand and put your new hive in its place, thereby catching enough bees to make the hive strong.

Let the bee-keeper try this plan and report through the BEE WORLD.

*Smithsburg, Md., July 2.*

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#### CHIPS FROM SWEET HOME.

D. D. PALMER.

It has been some time since you have received any "chips" from us, and our only excuse is, "we've been so busy." Last fall we put in our cellar one hundred hives, and had fifty-five to start with this spring, which I have increased to eighty-five, now, July 1.

When we had black bees we seldom, if ever, found two queens (or rather say mother bee,) in one hive. But since we have introduced the Italians, it is quite a common occurrence to find the mother and her unfertile daughter, and occasionally two fertile mother bees, occupying one hive. We make good use of such extra mothers by dividing.

We have our observing hive going finely in our sitting room, the bees passing to and fro by an entrance



through the wall. I wish no enquiries by mail how to make, and will give a few general directions. The size and shape will depend upon the frame you use. Make the bottom piece enough longer than the frame, so as to pass through the wall; and in this bore an entrance hole. Have two upright pieces and nail them to the bottom piece. On the sides of the top ends nail two strips. Rabbet out these three pieces on both sides for the glass, and so that the glass will be  $1\frac{3}{4}$  inches apart, and leave  $\frac{3}{8}$  inches space at bottom, sides and top of frames. Mortice a place in each upright for the projecting ends of frames. Lay a piece on top so as to fit the glass and end pieces. It is best to bore a hole in the top piece for feeding. If we wish to observe the rearing of mother cells, we would put in a comb of brood in all stages, with all the adhering bees, then the rearing of queens may be seen; and if two, or more, should cut out at, or near, the same time, a royal combat may be seen. Otherwise the first queen will destroy the others by cutting an opening in the sides, and then sting them. I have seen all the operations of the once mysterious hive except swarming, and now I have a laying queen in it, and as they are getting pretty well crowded, I expect to see the above soon. It is well to keep it darkened the first two or three days, and covered when cool.

Up to date we have had a very cold spring, except for about twenty days, and during this warm weather there has been considerable rain. Bees have only stored enough for brood rearing, but we have white clover still in bloom, basswood, fifteen acres of buckwheat and our fall range (Mississippi river bottoms,) still to come.

To those who intend to purchase a honey slinger, I would advise to buy none but stationary cans, and have as little to revolve as possible.

No amount of freezing will destroy the moth eggs, as we have frequently tested.

I have been using for years two sizes of frames,—the Thomas, 12x15, and the Langstroth,  $8\frac{1}{2}$ x $16\frac{1}{2}$ ; and I find, since having many combs to save from the moth, that the former is destroyed worse by the worms.

I procured a Universal feeder, two feet deep and eighteen inches in diameter. It is made of heavy tin, copper bottom, top perforated with small holes fifteen to the inch, or two hundred and twenty-five to the square inch. I find the holes are too large, or too many, but by covering the inside with muslin it answers the purpose well for a stimulative feeder. I feed about one-half pound to each hive per day, when they are not gathering honey. I also use this can for melting beeswax, as well as boiling the sugar I make into syrup for feeding. When I feed the bees I insert it over a wash tub, so that any leaking may be saved. I find it is the most economical feeder in time and feed, and prevents robbing, where a feeder for each hive tends to it.

It will be remembered by the readers of this journal that I made Dadant & Son a visit last season, and spent four days in their apiary. Since then I have received several letters asking me of their honesty and reliability. I would say here, for all, that I saw them putting up bees to send off, always being particular to see if they would fill the bill. They keep a register of their imported and home-bred queens on a small blackboard attached

to each hive. They cannot give all best queens, or all crowded stocks. Those wishing an extra queen, or a full hive, may depend upon getting such by enclosing an extra dollar. I have had queens from them, and find them to be pure, prolific, and of quiet dispositions. One I now am breeding from I think is as good as I ever had. The queens I have raised from her are dark, such being the color of most of my best queens. I have had a few of a light, golden color, that were good, but generally the dark, leather-colored, have given me the best satisfaction.

Jewell Davis wishes to know what we call elbow-brush, from which our bees gathered considerable last year. We are unable to give the botanical name, and can only describe it: It grows in very wet places in the Mississippi bottoms, is from six to eight feet high, and has white blossoms, about an inch in diameter. The brush is very angling, making an innumerable amount of elbows, so much so that it is impossible to pass through it. It blooms about the last of May.

After a year's trial, we feel proud of our slates, some of which stood out all winter and this spring the writing on them was very legible. They are made by cutting common school slates in pieces  $2\frac{1}{2} \times 3$  inches square, and by boring a hole in the middle of one end they are hung on the right hand side of the hive, facing it. In the right hand upper corner I put the year of the queen's birth, so that her age is readily told. On the left hand upper corner I put H. Q., (hybrid queen), or I. Q., (Italian queen), as the case may be. Then the condition of the hive and date of the last opening, as June 2. O. Q., or Y. Q., (young queen,) or Q. out, (queen out of cell) or Y. Q.

eggs, etc. On the outside of the slate I write anything that requires attention, as July 8, Q. cells, etc.

*Eliza, Mercer county, Ill., July 2.*

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NOTES FROM CENTREVILLE, I.A.

N. JAY WOOSTER

EDITOR BEE WORLD:—My apiary numbers now thirty-four colonies. I have used the extractor upon twenty-five, and have obtained thirty gallons beautiful honey, besides thirty-five pounds box honey. I sell my honey readily at home for one dollar per gallon. My bees have ceased swarming, and I find three colonies queenless. What shall I do with them?

I wish to sow mustard for my bees: what kind does best in our climate, and at what time must I plant to realize most benefit from my bees?

I have much trouble with the moth, and have lost three colonies this spring. I am about to try an experiment with one half my apiary. How would it do to transfer bees in the month of September? Could I not feed them and do no damage?

After circulating your journal among my neighbors, I have at last induced some to go into the bee, or honey, business; and I hope soon to see a great interest manifested in, and a rapid growth of, apiculture in our parish.

Louisiana is naturally adapted to the culture of the bee, and must soon stand among the first in this most interesting, as well as most remunerative business,—and will do her share in the support of persevering bee-journals, particularly our own ever-welcome, and invaluable, WORLD.

If the ladies of Louisiana would show the will and energy displayed by



Miss Anna Saunders, I feel confident our State could make as good a report. I would ask Miss Anna if the honey "extracted from hives every other day" keeps as well as honey taken from capped cells. Also what hive, or hives, she uses.

My extractor and hives have excited some curiosity among my neighbors, and my partial success has given rise to much bee talk; and brought many to see how I sling the honey from the comb.

*Centreville, La., July 6.*

—Almost every month something is published concerning transferring, but there are special cases, and localities, that seem to require special treatment. It is not, therefore, with the thought that our remarks will be conclusive we give advice. We see no harm in transferring in the month of September, if the work is properly done. Be sure that you give them all their brood; that you place back honey enough to carry them through the winter, which generally has to be done in two different ways: the thin comb being put in the frames, and the thick (or its equivalent in syrup), fed to them evenings to prevent robbing. We have transferred bees for the past two years in every month of the year; and they have done well.

Queenless swarms must be supplied with either a queen or brood to make one from. Stocks that remain queenless for a certain time become liable to the depredations of the moth. To introduce eggs, you can take out of the hive you wish to breed from, a piece of brood comb full of eggs, 2x3 inches square, take a comb from the center of the queenless hive and insert the piece of comb, cells downwards if possible, leaving an inch or

more of space between the bottom of the piece inserted and the other comb to admit of their running the queen cells down. This course rarely fails to be successful.

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#### SOUTHERN KENTUCKY BEE-KEEPERS CONVENTION.

The Convention met according to adjournment at the residence of R. A. Alexander, near Smith's Grove, Warren county, Ky., on Monday, the 19th of May. The Convention was opened by prayer by R. W. Stithe, of Harden county, Ky. Roll called, all the officers present and most of the members.

Prof. Wheeler addressed the Convention on the objects of its meeting, and urged all bee-keepers present to become members of the Convention. On motion the Secretary read the Constitution and by-laws.

The Secretary read a communication from Chas. Dadant of Hamilton, Ill., on the importance of removing drone combs and replacing it with worker comb. On motion, the thanks of the Convention was tendered Mr. Dadant for his valuable communication, and the Secretary was ordered to have it published in our local papers.

#### EVENING SESSION.

President Allen in the chair.

The committee on questions for debate, reported the following questions, and on motion the report was received and committee discharged.

1st question. What is the best time of year to transfer bees?

2d. Is artificial swarming better than natural swarming?

3d. What is the best vegetable to cultivate for bees to gather honey from?

4th. What season of the year should bees be fed?



5th. How can we manage bees to secure the greatest yield of honey?

The first question was then taken up: What is the best time of year to transfer bees?

Mr. Munford said if they were in bad condition, they ought to be transferred without respect to the season of the year; was not much in favor of transferring if hives were in good condition.

Mr. Cheek said he had but little experience in transferring, that he had 30 swarms, mostly in box hives; said he found robbers were very troublesome while transferring when honey was scarce. Said he had a number of hives to transfer, and that he came for information.

Mr. Smith said he preferred early spring to transfer, that he fed the surplus honey, and if there was none, syrup made of A coffee sugar.

The president said bees could be transferred at any season successfully, if fed and cared for after transferring. That he preferred early spring in fruit blossoming time or about the time white clover begins to bloom.

The second question was then taken up: Is artificial swarming better than natural swarming?

Mr. Munford said bees are sure to prosper the best when they were troubled the least, did not like artificial swarming, thought it best to allow them to swarm naturally.

Mr. Alexander was in favor of artificial swarming, said he could give the new swarm a queen cell, or a laying queen, and with care we were sure of increase of colonies, as no bees would run off and be lost, as was often the case with natural swarms.

Mr. Munford.—There is no danger of losing bees by natural swarming, if you have a suitable place for them to

cluster, that he never lost any. A few years ago he swarmed a great many artificially, and the next spring they were all dead.

Mr. Smith.—Two years ago I knew nothing about bees; saw Dr. Allen, the President of this Society, and he told the advantages of the Langstroth hive. I got some hives transferred, and they had but little brood, and in 30 days they were rich in stores, and had filled the top story with comb and honey. I made three new swarms out of the four, and they filled their hives and wintered well. I transferred them at the beginning of the white clover harvest.

Mr. Cheek—My experience in artificial swarming is not very great; but I can say I like it very much better than natural swarming. I save the trouble and vexation of watching our bees, and securing swarms clustered in difficult places to get to. Artificial swarming is preferable in many other respects.

Mr. Munford—If I was a professional apiarian, I would use the Langstroth hive, but would keep some in box hives to get natural swarms from.

The president said he much preferred artificial swarming; said there was various methods of making artificial swarms. He liked to have a laying queen to give the swarms. If, when they are swarmed, the honey harvest was poor, they would put on feeders, and keep them on until the hive was full. The time for debating the questions having expired, on motion, the discussions closed, and the remaining questions held over until the next meeting of this Society for discussion.

The committee on apiarian supplies reported as follows:

We would respectfully report that we have examined the honey extractors



of R. R. Murphy and J. W. Winder, and think both are well adapted for extracting the fluid honey out of the combs, which can be returned to the hive to be again filled. We have also examined the Quinby and the Winder smokers for subduing bees, and can recommend them as valuable aids in the manipulations of an apiary. We also examined the glass honey jars of C. F. Muth, of Cincinnati, which pleased us very much, and we recommend them to honey producers for marketing fluid honey.

On motion of Mr. Cheek, the Southern Kentucky Bee Keepers Society adjourned to meet in Burksville, Cumberland county, Kentucky, the third Wednesday in September next, at 10 o'clock a. m.

H. W. SANDERS, Sec'y.

#### LAND OF GOLD, MILK AND HONEY.

The Los Angeles (California) Express says: "It is stated that the honey product of San Diego county this year will be fully six hundred tons. One million two hundred thousand pounds of honey from a single county is prodigious for an industry only about three years old. Los Angeles county, also, is making tremendous advances in honey culture, and in a few years the two counties will supply the world. The honey of Southern California is without a rival in quality and flavor in market. It is only during the last twenty years the bees have been known in California, and to-day the business of the apiarist promises to be one of the most important in the Southern portion of our State.

From the same county, San Francisco has received since December last over 5,000,000 oranges, and 6,000,000 lemons, while the industry is rapidly extending to the other parts of the State."

#### A STINGING SUBJECT.

My wife is very proud of our garden, and while gushing over it the other morning, a happy thought worked its way under her back hair.

What a delightful thing it would be to have a hive of bees and raise our own honey, as well as everything else.

I have always thought that woman inspired ever since she convinced me that I couldn't do better than to marry her.

This was an original, bold idea; happy thought; glorious idea. I promised her a hive of bees, and went to business with a lighter heart and a firmer belief in the genuineness of home comforts and amusements.

I bought a hive of honey bees, and brought it home with me that very night.

It was one of those patent, hydrostatic, back-action hives, in which the bees have peculiar accommodations and all the modern improvements.

It was a nice little hive, none of your old-fashioned twists or barn-size affairs.

It even had windows in it, so that the bees could look out and see what was going on, and enjoy themselves.

Both myself and Mrs. B. were delighted, and before dark I arranged a stand for the hive in the garden, and opened the bay windows so that the bees could take an early start, and get to business by sunrise next morning.

Mrs. B. called me "Honey" several times during the evening, and such dreams as we had.

We intended to be up early the next morning to see how our little birds took to our flowers, but a good half hour before we probably should have done so, we were awakened by the unearthly yells of a cat.

Mrs. B. leaped from her downy couch, exclaiming: "What can be the matter with our Billy?"

The howls of anguish convinced us that something more than ordinary was the matter with him, so we hurried into our toilettes without waiting to do much buttoning.

We rushed out into the garden, and oh! what a sight met our astonished gaze! The sight consisted of a yellow cat that appeared to be doing its best to make a pin-wheel of itself. It was rolling over and over in the grass.



bounding up and down, anon darting through the bushes, standing on its head, and then trying to drive its tail into the ground, and all the while leaping up the most confounded howling that was ever heard.

"The cat is mad," said Mrs. B., affrighted. "Why shouldn't it be? The bees are stinging it," said I, comprehending the trouble.

Mrs. B. flew to the rescue of her cat, and the cat flew at her.

So did the bees.

One of them drove his bill into her nose, another vaccinated her on the chin, while another began to lay out his work near her eye.

Then she howled and began to act almost as bad as the cat.

It was quite an animated scene.

She cried murder, and the neighbors looked out from their back windows and cried out police, and asked where the fire was. This being a trifle too much, I threw a towel over my head and rushed to the rescue. In doing so, I ran over and knocked her down, trod upon the cat and made matters no better.

Mrs. B. is no child in a wrestle, and she soon had me under her, and was tenderly stamping down the garden walk with my head, using my ears for handles.

Then I yelled, and some more bees came to her assistance and stung me all over the face. She was still giving me darby, under the impression that I was the cause of all her pain.

It was love among the roses, or something of that nature.

In the meantime, the neighbors were shouting and getting awfully excited over the show, while our servant, supposing us fighting, opened the street door and admitted a policeman, who at once proceeded to go between man and wife.

The bees hadn't got at Mrs. B.'s tongue yet, and she proceeded to show the policeman that I had abused her in the most shameful manner, and that I had bought a hive of bees on purpose to torment her into the grave.

I tried to explain, but just then a

bee stung the officer on the nose, and he understood it all in less than a minute. He got mad; actually lost his temper.

He rubbed his nose and did some official swearing. But as this didn't help matters, he drew his staff and proceeded to demolish the patent hive.

The bees failed to notice his badge of office, and swarmed on him. They stung him wherever he had no clothing, and some places where he did have it. Then he howled and commenced acting after the manner of the cat and its mistress. He rolled on the ground for a moment, and then got up and made a straight line for the street, shouting fire.

Then the bees turned to the people who had climbed upon the fence to see the fun. The excitement increased.

Windows went down, and some of the neighbors acted as though they thought a twenty-inch shell was about to explode.

By this time a fire engine had arrived, and a line of hose was taken through the house into the garden. One of the firemen asked where the fire was, but just then one of those honey mosquitoes bit him behind the ear and he knew directly. They turned a stream upon the half-ruined bee hive. The water had the desired effect, and those bees were soon among the things that were. A terrible crowd had gathered in the meantime in front of the house, but a large portion of it followed the flying policeman, who was rubbing his affected parts and making straight for the station house and a surgeon.

This little adventure somehow dampened our enthusiasm regarding the felicity of raising our own honey.

During the next week we wore bread and milk poultices pretty ardently, but not a word was said about honey, and Mrs. B. has gone to stay a week with her mother, leaving me and the convalescent cat, and the tickled neighbors, to enjoy our own felicity, but not with bees—oh no!—[Story Teller.

—o—

A bee in the hand is worth two in the bush.



## Notes and Queries.

Subscribers are especially requested to write short notes on the honey prospects, weather, time and duration of the bloom of different honey-producing plants, price per pound for honey, &c., &c. for this column.

C. R. CARLIN:—Honey season good. —Shreveport, La., June 17.

E. & L.:—Our bees are doing well here now, but some of them got a cold last winter. —Vinton, Iowa, June 14.

E. M. WISE:—The honey harvest in my locality is very good this year. I have taken out about twenty pounds to the hive up to this time. —Waxahachie, Texas, June 7.

N. JAY WOOSTER:—We have had two month's drouth, and our bees are doing nothing; and the moths are making sad havoc among the weaker colonies. Have sold only \$26 worth of honey at \$1 per gallon, from about thirty hives. —Centreville, La., June 1.

E. W. BARBER:—Up to this time bees have done nothing. \* \* I think your BEE WORLD unsurpassed by any journal of its class in the country; and deserving of the patronage of the whole bee fraternity. —Braden's Knobs, Tenn., July 2.

W. H. FULLER:—I must tell you some of my bee experience: I once had sixteen colonies, but by too much handling I reduced them down to one. This was in the spring of 1874, and I was then rather disgusted with the bees, although I felt satisfied that it was my own mismanagement. On the 12th of May, 1874, a stray swarm of bees alighted near my house, and I hived them. On the 19th of June, following, I divided the colony, and also the one I had, making me four colonies this spring. I have had six swarms from the four, and now feel quite encouraged. —Little Rock, Ark.

J. W. MASSEY:—How late in the season can I transfer bees successfully? —Crystal Springs, Ga. June 18.

—Strong stocks can be transferred at almost any time in this climate, if you know how to do it. Read advice given in back numbers of BEE WORLD, take pains, and you can transfer as late as September, with safety. —ED.

JOHN W. JONES:—We have no practical bee-keepers in this section, but some are getting a little "inspired." A good bee-journal may help to develop "good intentions." Bees generally are not doing well here. Colonies are reasonably healthy and vigorous, but there is no swarming, nor any surplus. It was too cold, then too dry. Now it is too wet. —Coral Hill, Ky., July 14.

J. LABAR:—My black bees have to be watched more closely than the Italians, to keep free from moths; in fact, my Italians have never been disturbed by that pest, to my knowledge. I have lost four colonies of blacks, in box hives, by moths this summer. —San Antonio, Texas, June 18.

J. HATCH:—The bee business has about gone up the spout in this section. At least three fourths of the bees are dead, and the balance are very much weakened by dysentery. I have lost \$200 worth of bees, and feel somewhat discouraged. —Presque Isle, Maine, June 1.

J. M. BROOKS:—Bees have not gathered any honey, as yet, this season, although white clover is in full bloom; —too wet and cold. But now it is warm enough for any use, 108 degrees in the sun. Next month will surely bring honey; if not, I will give it up for the season. —Columbus, Ind., June 4.



# MOON'S BEE WORLD.

A. F. MOON & CO.,

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JULY, 1875.

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## INTRODUCING QUEENS.

THE prevailing cause of failure to introduce queens successfully, is a lack of food. When a queen is introduced, we generally leave her in a cage, made of fine wire cloth, for three or four days. She is placed between two frames of honey, and the frames are set so closely as to admit of her reaching the honey through the sides of her temporary prison. If the bees are averse to receiving her they will cut away the honey from her cage and thus cause the cage to drop to the floor of the hive. In this condition she will starve in four or five hours. When a queen is liberated, see to it that you destroy all queen cells the bees may have started.

In one county in California a hunter located thirty bee trees in a short space of time.

THE office of the American Bee Journal has been changed from Cedar Rapids, Iowa, to Chicago, Ill.

THE editor of Bee-Keepers Magazine bolsters up the hopes of its readers with the information that if the Pope dies wax will advance in price.

NELLIS BROS., Canajoharie, N. Y., send us a very fine steel engraving of the late M. Quinby. It is a faithful picture, and will be highly prized by bee-keepers.

THE profits accruing from one hive of bees, would enable the owner to take all the bee-journals in the United States. Can you not devote a hive to that purpose?

SEND one dollar to A. I. Root & Co., for a copy of their *Medley*. It contains photographs of the best bee-keepers of the country, and is well gotten up.

LOOK often to your colonies; and if any weak ones are discovered, feed them up. They can be made as strong as any by another spring, but will be worth comparatively nothing if left to themselves.

WRITE down a few notes and send them to us for publication. You may have a good location; you may have a bit of information worth dollars to some one; or may learn something worth as much to yourself.

BIG honey yields are being reported to us from nearly every state in the South. Your turn may come next. Begin the campaign next year with strong colonies, plenty of empty boxes and an extractor, and then look out for "developments."



A GENTLEMAN of Atlanta, Ga., was stung so severely about the head and neck a few days since, as to require medical attendance. Repeated doses of brandy were administered before relief was obtained.

C. R. ISHAM, of Peoria, N. Y., sent us a set of his patent glass honey boxes, which are a great improvement over the old style boxes. If Mr. Isham would advertise them, we think he could soon have these boxes in the apiaries of the South.

The Gainesville Apiary, started last spring by the Messrs. Thornton & Loveles, has thus far, we believe, proven a success. With the above named gentlemen as managers, we could not do otherwise than predict success for the enterprise.

Who ever counted the number of queen cells in a hive just casting its swarm? We recently took from a hive forty-seven queens, hatched and hatching. They being of the opinion probably, that too many would not be as bad as not enough.

WHEN friend "Novice" kindly invited us to form one of the members of his Medley, we had no idea of the magnitude of the enterprise he was undertaking, nor the expense he must incur; otherwise he should have had a hearty encouragement from the BEE WORLD. Please pass the above to our credit, Novice.

SAMPLES of wax foundations for facilitating comb building in the hive, by the manufacturers, Erwin & Lear, Vinton, Iowa. We would suggest that the side strips are not strictly necessary to insure straight combs; also that the proper place for an extended notice would be the advertising columns.

At one point alone, in California, 300,000 feet of lumber are annually made into bee hives.

A PENNSYLVANIAN IN THE SOUTH.—The following letter from Dr. W. B. Rush, formerly of Simpson's Store, Pa., now of Pointe Coupee, La., explains itself: "Friend Moon:—I am in the Sunny South; and to say that I am delighted with it, is not saying half. Please change former address to this place."

Good for the doctor! We prophesy that he will just "rush" the honey business in his new abode; and sell it without "doctoring" it, too.

ALBINO bees are certainly a curiosity, but they are no less a thing of fact; for we have a hive of them in our apiary, the mother of which came from the apiary of D. R. Pike of Smithsburg, Md. We expressed ourselves unfavorably of them last year, but, after trial of them find that they breed uniformly as to color and size. This refers to the worker progeny of the queen; the queen progeny will soon be tested, and we think they will not hurt the reputation of their ancestor.

Elsewhere will be found the advertisement of a National Exposition, to be held in this city during the coming October. It promises to be one of the most interesting exhibitions the South has ever witnessed. Half fare rates have been obtained on the leading railroads, governors and senators have promised to attend, the premiums are large, and for a general good time this promises to be unequalled. We suggest this as a proper time for holding our next Bee-Keepers' Convention. The time for holding it has not been published, nor has it been intimated to the bee-keepers. What says the Secretary, shall it be during the week ending October 9th?