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MOON'S BEE WORLD,

— A GUIDE TO —

BEE-KEEPERS.

VOLUME 3.

JUNE, 1876.

NUMBER 7

For the Bee World.
Occurring thoughts in reading the April No.
of the Bee World.

(Continued from May No.)

WM. J. ANDREWS.

DRONE LAYERS.

In addition to the authors quoted by Mr. J. W. Howell, we will add the following: Mr. Quinby, on page 37 of his Bee-Keeping, says: "Queens with faulty wings, or otherwise unable to fly out to meet the drones, or such as are raised late in the season, when no drones exist, are certain to prove drone layers; every egg they deposit, whether in worker or drone cells, produces a drone. I have frequently, since obtaining the Italian, reared queens intentionally late in the season, that I may have drone laying queens for the purpose of raising early drones. Such failed to meet the drones, and were drone layers in consequence. Whenever the brood of the fertile workers has matured, it has proved to be drones. No one will pretend that

these have become impregnated. All this indicates, if it does not prove conclusively, that all drone eggs are unimpregnated. There is still another indication that they are not impregnated. The Italian queen that has met the native drone, and brings forth a mixed progeny of workers—half Italian and half native—will produce just as pure drones as her mother or one that has never met the drone." To the theory advanced in this last sentence we do agree, and, like friend Howell, cannot regard it in any other light than "as being nonsense and contrary to reason and common sense." King's Text Book page 14 advances the same idea. He says eggs are sometimes laid by the young queen before her impregnation, but they invariably produce drones.

NATURAL SWARMS.

Friend Howell does not think we will have swarms so soon now in consequence of the cold weather of March. In one of our apiaries we had two regular natural swarms from the same hive before the 15th of April.

GEORGIA WRITERS,

by J. M. Harris, we think timely, but we would make it SOUTHERN WRITERS. Why is it that Southern bee-keepers will not take so much interest in this subject as Northern bee-keepers? and why is it, with a climate much better adapted to it, and with better ranges of natural pasturage, and attended with far less expense, that Southern bee-keepers do not make bee keeping a paying business like those of the North? Nor is this the case with bee-keeping alone. Look at the dairies North, and the thousands of pounds of cheese shipped South annually. Where are our Southern dairies? The same is also true of nearly every manufactured article. We depend on the North for nearly everything—when we might just as well be independent of it.

SEX OF BEES.

Friend Knight, we think, has advanced about the wildest theory we have ever read in connection with apiculture, when he says, The truth seems to be that one egg in several hundred is a queen egg; and that if the bees are in want of a queen, they select it and raise one; but if not they destroy it. He can, beyond all question of doubt, we think, satisfy himself on this point by removing the larvæ from a queen cell, or cells, and inserting, indiscriminately, larvæ from other combs not exceeding four days old. Let him take a black stock and make it queenless; from their own larvæ they will start several queen cells. When these cells are three or four days old, let him remove the larvæ they contain, in its place insert young larvæ from the best queen he has, and then give us the result of his experiment.

REVIEW,

by J. S. Devitte, we like very much, and hope others will drop into line.

ALBINO BEES.—PERSONAL.

This appears to be drifting into a personal controversy between Messrs. D. A. Pike and David Staples. We wish to state, for our part, that it is a controversy about which we have nothing to say at the outset, and one which we intend steering entirely clear of. They can fight it out on their own line if it takes all summer. This much, however, I do wish to say in behalf of myself, that I hate and detest anything that smacks of humbuggery or swindling, and so far as those who may favor Columbia Apiary with their orders, shall be dealt with honestly—or, as the old saying has it—on the square. Satisfaction shall be given as far as it is in our power to render it. For my own part I did not go into the queen rearing business for the money that might be in it, but simply through pride. I want no greater compensation than the character of having as good, if not “the best,” Italian or any other kind of “bees in the world;” and our efforts shall be to attain that summit. If Italians are the best, we intend, if money will procure them, to have them. If the albino is “the best in the world,” if friend Pike will let us have them, we will have them too. If the Cyprian is “the best in the world”—and from our reading we are of the opinion they are—we shall have them. We will give fifty dollars now for a good pure queen of that variety. In conclusion allow me to add that I would prefer to refund every dollar that comes into my hands for queens, than to have any one for a moment entertain the thought that I had been instrumental in either humbugging or

swindling them. With these remarks, Mr. Editor, I leave the subject, and they would not have been made but to correct any impressions that might be conveyed or applied to Columbia apiary from the reading of Mr. Pike's article, as Mr. Staples is the man who has the rearing of the queens shipped from it.

IMPORTED QUEENS.

Mr. E. B. Plunket says he can say to Ch. Dadant & Son the queen sent him in October last was a fine one. This, we regret to state, is more than we can say. Messrs. Dadants have sent two of their imported queens into this county—one to Mr. Kannon and one to myself—and neither of us are pleased with his queens. And, moreover, we have yet to come across the bee-keeper who has seen them that is pleased with them. We cannot say that they are the straight black bee, but we do say that 999 out of 1,000 persons would pronounce them such. Neither the queen nor her workers have any rings, so far as we have been able to discover. She does not please us, and we do not think will please any of our customers, even though Mr. Dadant himself were one of them. So believing, and trusting to getting something better, we ordered an imported queen of Dr. J. P. H. Brown. The first one he sent us came up missing. He very promptly responded when notified of the fact that he would make the loss good. We are, at this writing, in receipt of a letter from him informing us that he will start another to us on the 25th. We have also instructed him to book us for another of May importation, provided we are pleased with the first one. When she arrives we will drop you a note and let you have our opinion of her.

A SOUTHERN SOCIETY.

We note your editorial remarks under the head of N. A. B. K. Society. Thanks. Now cannot we organize a Southern Bee-Keepers' Society in Philadelphia during the centennial exhibition. We take it for granted that a great number of Southern bee-keepers will be in attendance at the Centennial. Now why not fix upon some day, and all be in attendance on that day. Some think that the 4th of July would be the grandest of the occasion; then suppose we all try to be there on that day and meet on the following day. If this suggestion meets with approval, let it be known in the June No. of the BEE WORLD; or if a respectable number of Southern bee-keepers will drop me a postal saying they will be there on the day named, even though the number be barely a sufficiency to form a nucleus, I will take steps to make it generally known, and also to make arrangements for a meeting place when we get there. Southern bee-keepers let us hear from you.

In conclusion allow me to add a few remarks on

A PLEASANT EPISODE.

Your readers will doubtless remember my remarks in your February No. about Miss Anna Saunders. I have read many of Miss Anna's letters to my wife with a view of stimulating her to take an interest in the bees. During the reading of one of them she remarked that the name was a familiar one, and suggested that I write her and make the inquiry. I did so, and hear what she says in reply: (although her letter was not written with a view of its being published, I cannot withstand the temptation to give it.)

HOME, April 12th, 1876.

MR. ANDREWS:—Your letter affords me great pleasure. Dorrie [that is my wife] is the first of my old

friends to turn up in this way. I would like so much to see her, and will certainly avail myself of your kind invitation to make your house my home should I ever visit Columbia again. You are right; this brings us almost into family relations, for I loved the Gordons, especially the Major's immediate family, as dearly as the members of my own family, excepting only the very nearest. I am sorry you did not tell me something about them. [She then goes on to make inquiries of all the individual members of the family, and wants to know if Dr. McLean, who writes for the BEE WORLD, is the husband of one of the members of the family. He is not, Miss Anna.] She continues: In reading your writings I have often wondered if you were the same little Andrews [look out, Miss Anna, you might be making yourself quite old,] who made himself so agreeable to our young folks the summer before the war commenced; if so, you must remember it, for there was such a crowd of us we must have created a sensation, especially with the young folks.

* * * * *

She adds:

April 13th saw the first poplar blossom this morning. My bees have been working on white clover for a week, the first time I have known of their gathering from it since I have been bee-keeping. It is very abundant—covers the roadsides, much of the old fields and branch bottoms everywhere. My bees are still very weak, most of them, though a few are in splendid condition. Saw the first drones on the 1st inst.—many queen cells in some hives, but have seen no swarms issue yet—they were earlier last year.

There, Mr. Editor, is a pretty good bee communication for the WORLD, of itself. Miss Anna, we will write you a long letter and answer all your questions.

Columbia, Tenn., April 24th, 1876.

P. S.—Since writing the foregoing, we are in receipt of our imported queen purchased of Dr. J. P. H. Brown, and we are very much pleased

with her appearance, and the markings of her workers; as to her prolificness we cannot speak at present. This much we have to say: if Brown's is an imported queen, (and she will, in appearance of herself and workers, bear a test of the rules laid down for testing,) and Dadant's is also an imported queen, then there are black bees, yea, hybrid bees in Italy; for the one is well marked with three bands, while the other shows workers with no bands and black, others with one, and none with more than one; while the mother is perfectly black. I would not sell a queen from my Dadant queen, unless specially named in the order, but shall give some of them away for others to judge of, and feel very much prompted to serve her as I would a black queen, under no consideration would I allow her to rear drones.

Experiments with Bees.

The record of Sir John Lubbock's observations on ants and bees constitutes a most interesting chapter in the annals of natural history research. On several previous occasions we have presented condensed reviews of these observations, the results of which were briefly to the effect that, in the matter of communication the one with the other, the ant is more intelligent than the bee—that is, that while certain facts indicate that ants are able to communicate to their fellows the location and nature of a newly-discovered food supply, bees, either from lack of power or inclination, keep such secrets to themselves. The tests instituted with a view to determine whether bees were able to distinguish between colors have also been laid before our readers hence we will pass on to the review of

observations as given in the last paper on this subject, and published in the *Journal of the Linnaean Society*. From its very nature the record is mainly an account of experimental tests and observations, conducted in order to reach certain definite conclusions; and from this record we condense as follows: The early portions of this paper are devoted to the habits of bees, and, unless these later observations be sadly at fault, the bee has been a greatly overrated member of the insect fraternity. Having become convinced that bees were sadly lacking in intellectual qualities, Sir John Lubbock determined to test their emotional natures; in a word, having proved them thoughtless, shall they be regarded as heartless also? The following instances will serve to indicate the author's views on this latter point: "I have already mentioned," he states, "with reference to the attachment which bees have been said to show for one another, that, though I have repeatedly seen them lick a bee which had smeared herself in honey, I never observed them show the slightest attention to any of their comrades who had been drowned in water." The conclusion drawn from this is, that the licking of the body of their comrade was prompted by a desire to procure the sweets with which he was smeared rather than from any sympathy with him in his perilous or uncomfortable state. This evidence of a lack of sympathy for each other was confirmed in several other cases. Having once crushed a bee so close to one that was feeding that their wings nearly touched, the survivor took no notice whatever of the death of her sister, but went on feeding, with every appearance of composure and enjoyment, just as if nothing

had happened. When the pressure was removed, she remained by the side of the corpse without the slightest appearance of apprehension, sorrow, or recognition. It was, of course impossible for her to understand the reason for killing her companion; yet neither did she feel the slightest emotion at her sister's death, nor did she show any alarm lest the same fate should befall her also. This test was repeated with like results, and was also varied, as in the instance where one bee, was held by the leg close to a comrade who was feeding. The prisoner struggled to escape and buzzed loudly, yet "the selfish eater took no notice whatever." Hence the conclusion that, so far from being at all affectionate, it is doubtful whether bees are in the least fond of one another.

The devotion of bees to their queen having been frequently quoted and signalized as a most characteristic trait, Sir John determined to put it to the following practical test: Being anxious to change a black queen for a Ligurian, the substitution was made, the queen thus forced to abdicate being placed with some workers in a box containing some comb. After a suitable interval the box was examined when it was found that all the bees had deserted the poor queen, who seemed weak, helpless, and miserable. She was then removed to an adjacent window-sill, upon which honey had been placed to attract her former subjects. Here, though placed so near the honey that several of the workers on alighting even touched her once royal person, yet not one took the slightest notice of her. That their former signs of affection were prompted by a regard for the office she held, was proved by the fact that when this

same queen was again placed in the hive, and thus reinstated, she immediately became the sole object of attention just as in former days. As Sir John in this paper appears as a simple recorder of facts, he fails to point a moral, which in the light of human history might suggest itself to some cynical or misanthropic reader.

Passing from these tests of character, if they may be so styled, we come to the record of farther experiments relating to the nature of the bee's physical senses. Having demonstrated that bees can recognize colors, it appears equally certain that they can distinguish scents. For instance, on one occasion a few drops of eau de Cologne were put at the entrance of the hive, and immediately about fifteen bees came out to see what was the matter. The same effect was produced by rose water, though it was observed that after a few days hardly any notice of the scent was taken. This particular sensitiveness to novel odors was made to render service in determining whether the same bees always act as sentinels, and an affirmative result obtained.

With these facts regarding the bee's sense of smell before him, the writer returns to the question of intelligence, upon which he believes these latter facts throw some further light. We are told that the bees of one hive all know one another, and immediately recognize and attack any intruder from another hive. That this indicates superior intelligence is questioned by this observer, since he believes it possible that the bees of particular hives have a particular smell, and is therefore of the opinion that if colonies are sprinkled with scented sirup they may generally be safely mixed. Moreover,

a bee returning to its own hive with a load of treasure is a very different creature from a hungry marauder; and it is said that a bee, if it be laden with honey, is allowed to enter any hive with impunity.

Having thus made a strong case against the intelligence and affection of the bee, there yet remains one point to be established to effect its utter debasement. Prove that the bee is not fond of work, and you rob him of his last claim to kindly favor. This point Sir John does not boldly assert, but the tendency of his argument is in that direction. Though their extreme eagerness for honey should possibly be attributed to anxiety for the common weal rather than to greediness or desire for personal gratification, yet there are certain signs that point toward the latter as the ruling motives. "I have seen," says a leading authority on bee-culture, "thousands of bees strained out from the sirup in which they had perished; thousands more alighting even upon the boiling sweets; the floor covered and the windows darkened with bees, some crawling, others flying, and others still so completely besmeared as to be able neither to crawl nor fly, not one in ten able to carry home its ill-gotten spoils."

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Remarks on Wintering.

[Translated for the BEE WORLD, from L'Apiculteur for February, 1876, by W. W. Croom.]

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(Continued from May No.)

M. Pierre Cuny having been (apparently upon the authority of his own book,) appointed, at the last Apicultural Exposition of Warsaw, a member of the Jury for apicultural products, it is extremely natural to fear that this book, with its erroneous precepts, may

expose the Polish apiculteurs to the same losses and dangers, to the same confusion of ideas, which the theories of Berlepsch have caused for twenty years, and are still causing in the minds of German bee culturists.

We say, above all, that the bee is not an insect of a hot climate, even of regions warmer than ours—imported from the South by man into colder countries. No, the organization of our honey bee is perfectly in accordance with our cold climate, and particularly with our long and rigorous winters. What proves this, in a manner beyond dispute, is the singular and generally well known fact, that bees can, during six months of winter, exist extremely well in a hive and retain their excrements in their intestines, which are not evacuated till at the time of their first fly in the spring.

Bees do not quit, it is true, their hive only on warm and serene days; but whoever would prove from this, that these insects came from warmer regions, must admit, as a natural consequence, that the drone, for example, who has need of a higher temperature in making his sortie than the bee proper, must also have been imported into our climate by the care and foresight of man.

In wisely accommodating the bee to the climatic conditions of our country, nature has indicated to it the kind of habitation the most suitable, that is to say, the interior of hollow trees, and has destined it to live in populous colonies.

But would it be inferred from this, that an isolated bee could not exist in a temperature less than 8° centigrade, (46° Fahrenheit), that a whole colony in its dwelling should be destined to live in a climate where the temperature

never descends below 8° centigrade (46° Fahrenheit) is what I do not fear to qualify as pure absurdity.

An isolated bee, surprised by the cold, takes refuge in the hive near the swarm, where he finds sufficient protection; but as soon as the sensation of cold ceases, a number of bees detach themselves at first from the group where they were concentrated, and afterwards quit the hive, either to enjoy life and warmth, or to attend to the gathering of provisions. The heat, then, is the sole cause which, in spring, after a long winter, draws the bees outside of their hive, but before they decide to go out to enjoy the light, it is necessary that the exterior heat penetrating the depth of the hive should remove from the bee all fear of cold. This fact once admitted, and I doubt if anyone can be found who would pretend to invalidate it. If, I say, we are agreed that it is the heat which, augmenting by degrees around the hive, solicits the bees to go out of it in spring, it will be clear and without doubt that a certain abatement of temperature in the interior of the hive is strictly necessary that the bees may not be tempted to go forth prematurely. This is not all, during the first season we see a party of bees hasten from the hive to go foraging, while others in the interior, fixed to the frames, are occupied with building or in educating the rising generations. This activity necessitates a much larger supply of alimentation and more frequent sorties.

In winter, on the contrary, we see the bees drawn together in knots or balls, completely inactive, and taking only so much nourishment as is necessary to maintain their organic warmth. The temperature, then, in the interior

of the hive should be maintained in winter, sufficiently low that the bees, during this season, should not be tempted to make expeditions, which are so dangerous for them—and induced to persevere in that torpid state which excludes all idea of summer activity—a torpor which manifests itself by the assembling of all the bees in one group.

Are we agreed in all this—two questions present themselves to us. The first is to know if the external temperature being low, a sufficient degree of heat being developed in the interior of the hive to draw the bees prematurely from their torpor and tempt them to go out. The second, if this abnormal heat in the interior of the hive during winter is really injurious to the bees.

If we measure the temperature in the interior of the hive, we will find always a considerable difference between the center of the space where the bees are concentrated and other parts of the hive. If, for example, the temperature of the air is 32° , we will find in the interior of the hive wintering naturally, a temperature nearly equal to that of the circumambient air.

Divers circumstances may, it is true, modify this relation and bring to the interior a temperature higher or lower than that of the exterior air: accordingly, for example, when the weather has been warmer or colder preceding days, we can verify in the interior a temperature of 32° or 34° to 40° or 44° , while during this same time the temperature of the space where the bees are grouped shows at least 60° , and may rise as high as 80° . We see by this that the organic or vital heat is very high. Now, physics inform us that this heat communicates

itself by radiation to surrounding bodies. It is easy, therefore, to understand that by a concurrence of circumstances, this organic or vital heat, coming from the bees themselves, may, by its radiation, increase for a time more or less long, the temperature to the same degree in the whole interior of the hive—the same as if the soft breath of spring had penetrated from without; let us suppose, for example, that the hive having very thick walls, should be only partially penetrable by the external cold; that it should have but little space and filled with comb; that the entrance should be placed at the bottom or low down; that, besides, it should contain a strong colony, very populous; suppose, with all this, that the winter should be neither sufficiently cold to cool the bees nor so mild as to permit the bees to make successive sorties, it is quite possible that, under the action of these diverse circumstances, we may find in the interior of the hive, a temperature of 52° and even more, while the external air in the meantime may have a temperature of 37° to 39° above zero, the death of the bees that should attempt a sortie would be inevitable.

The case which I have just cited is not, take particular notice, a pure abstraction, far from it: it presents itself frequently enough, above all among apiculteurs who (like M. Cuney for example) will not, or cannot, comprehend that too much heat in a hive in winter may be injurious, and even fatal to the bees.

In Germany, Berlepsch, as well as thousands of his disciples and adherents, have proven the fact in more than one instance. They have even described with the most scrupulous exactness all the phenomena, all the

consequences of this state of things, but what is strange, that with some exceptions, they have not learned to draw this conclusion so natural: that too great heat in a hive in winter, is probably murderous to the bees—a fact which has been well known for centuries by the simple peasantry of Poland and Russia. Here then, are the symptoms occasioned by this excess of heat: first, the bees united in a group as we have seen, are drawn from their state of languor, inactivity and of almost numbness or torpor; they separate and spread themselves in all parts of the hive.

This awakening quite natural at the end of winter, after the freeze and under the influence of the gradual heat of spring, is fatal in the midst of winter, and so much the more disturbing as the winter is prolonged.

Therefore as soon as you perceive this movement, cool the hive in time and sufficiently, that the bees may be induced to group themselves anew; otherwise the consequences of this awakening may prove disastrous. Among these consequences one of the most serious is the deterioration which is manifested in the bees.

DR. KRASICKI.

To be continued.

For the Bee World.
Scarcity of Honey.

J. M. HARRIS.

EDITOR BEE WORLD:—I have watched my bees closely up to this time, and find them trying to increase their families, in which they seem to be succeeding very well, considering the circumstances under which they labor. I am inclined to think that the fruit blooms, and all other blooms around

us up to this time, have secreted very little honey; at any rate I know that my bees have secreted but little.

I think I could eat all the honey in any one hive at a mess, yet they are raising finely, if I am a judge. Some time since, I noticed one of my colonies seemed to be doing badly, and on examination I found them without brood or eggs and with very little honey. Not seeing the queen, I supposed there was none. I went to another hive, took a frame containing brood and some honey and gave it to them. Two or three days after, I examined them again, (fed them in the meantime,) and was somewhat surprised to find a good many fresh laid eggs. On looking closely, I saw the queen was all right.

I think it would be more acceptable generally, if some writers would give their experience, or some instruction to beginners, and not REVIEW so much.

Two contributions in April No. from Georgia. Well, that is better than only three in four Nos.

Cedartown, Ga., May, 1876.

For the Bee World.
Queen Eggs.

T. B. PARKER.

It seems to me that some of us beekeepers are rather hasty in arriving at conclusions.—I will not except myself in that particular.

I think our friend Knight is mistaken in supposing that queens are reared from what he terms "queen eggs." More study and experiments in that direction would, I think, have caused him to think quite differently. As to how the properties of "royal jelly" will change the "physical form and mental faculties of the worker bee," I don't

propose to explain. Nevertheless I fully believe that the change is made some way other than by a "queen egg." I am firmly of the opinion that any egg that will hatch a worker, will, with proper treatment, produce a queen. Friend Knight says that one egg in several hundred is a queen egg. What do the bees do with those queen eggs? It is to be supposed that the queen lays them as regularly as the worker eggs. We will say, as I suppose friend Knight will, that the bees destroy them, lest we have a continual rearing of queens. As the bees know these queen eggs, they will destroy them at once, being more economical than to wait until after they are hatched. According to that reasoning, there never could be a queen reared from larvæ, no matter how young; there being nothing but worker eggs, you could get nothing but worker bees. Now, every queen breeder knows that queens can be reared from young larvæ. But suppose we admit that the bees do not destroy them until after they are hatched, giving them a chance to rear queens from the larvæ; that does not give any support to the "queen egg" theory.

In support of the "modern theory," as friend Knight terms the generally accepted one, I will give a letter from Dr. Larch, in March No. of Gleanings, in which he states that he has exchanged larvæ, &c. If only one (or a dozen) out of several hundred larvæ would produce queens, I think that he would have called the process a failure, as he certainly could not tell those that would produce queens from those that produce workers. He says: "Select queen cells with larvæ not more than 36 hours old; with steady hand gently insert the point of a sharp knife un-

der the larvæ and lift it out without disturbing the royal jelly. Carefully replace it with another larvæ, about the same age, taken from a choice queen. If skillfully done the bees will nurse it into a queen just as readily as if it were of their own brood. That such queens are as good as any has been abundantly proven the past season. I have 11 such in my apiary, all of which were prolific, and became the mothers of powerful colonies, &c., &c." The editor, A. I. Root, adds his testimony to that of Larch, and says that he reared several queens that way last fall, and adds that J. L. Davis of Holt, Mich., tried the same plan with satisfactory results.

Unless we question the veracity of the gentlemen, we are bound to admit that the above is sufficient to satisfy the most skeptical as to the rearing of queens from worker eggs or larvæ.

We should be careful in jumping at conclusions, and in anyway publishing them, until we are satisfied of their genuineness, lest we heap error on the almost boundless ignorance that already exists pertaining to the honey bee and its management.

I know a man who firmly believes a drone is a worker that has lost his sting;—his uncle told him so, consequently he could not be mistaken. I knew another who said that when the "king" bee died you could make another of leather, place it in the "king's" house and the bees would worship him and do as well as before. Also that when a bee stung anything in his majesty's defence he was called a drone, the "king" did not require any more work from him, but would make the other bees support him as long as he lived. In the face of such ignorance, to avoid error is almost impossible.

Goldsboro, N. C., May, 1876.

For the Bee World.

How far do Bees go for Honey?

WM. J. ANDREWS.

Mr. Quinby in his work on "bee-keeping" page 100 in writing on this subject says: "The queens and drones, situated that distance (seven miles) apart, do sometimes meet, as is proved by black queens producing hybrids, but whether one travels the WHOLE DISTANCE or they meet each other half way, is not certain."

A friend of ours who has no Italians nearer him than eight miles, informs us that many of his colonies are hybrids, now the question is, as Mr. Quinby puts it, "do they travel the WHOLE DISTANCE or do they meet each other half way. We are inclined to the opinion that the WHOLE DISTANCE is traveled by the drone. In seasons of scarcity, we all know that drones are expelled from the hive, it is also an admitted fact that drones are permitted to peaceably into different hives, especially those which are queenless or have young unfertile queens. Our theory is this—being expelled from their own home, and perhaps unable to find a home in the yard in which they were reared, they become wanderers and roam from place to place, until they find a hive, even though a bee eight or more miles distant, which is either queenless or contains an unfertile queen. We simply advance this as an idea of our own, not being possessed of any data to base our opinion on, rather than that given, and would be pleased to hear the views of others.

Columbia, Tenn., April 27th, 1876.

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WRITE out your experience for the benefit of others.

Mississippi Valley Bee Keepers' Association.

The Mississippi Valley Bee Keepers' Association, which was organized in February last, held a meeting on last Tuesday at the Board of Agriculture rooms, at the northwest corner of Sixth and Locust streets, in this city. Meeting called to order at 1 p. m. by Hon. John Monteith, President N. J. Colman being absent. The secretary, Mr. W. G. Smith, read the minutes of previous meeting, which were adopted. The following names were then added to the list of members: A. T. Williams, and A. T. Windhorst, of St. Charles, Mo.; A. W. Draper, of Upper Alton, Ill., and Thomas Kirker, Dr. P. C. Pitzer, Mr. Gill, and Wm. M. King, of St. Louis.

Reports from bee keepers being in order, Mr. Williams, of St. Charles, stated that his bees had wintered well and although the past season was an unfavorable one for bee raising, he had no reason to complain. During the last seven or eight years his losses had been very light. He winters his bees in a cellar made especially for the purpose. He thinks that vegetables, and other perishable products, should not be kept in the same cellar with the bees. He would by all means exclude cabbage and vinegar. He possessed one hundred colonies of Italian bees, and had no use for black bees, although the latter had often been by him Italianized very successfully. He raises bees exclusively for profit, and does not have any queens to sell. He prefers the Italian bees. In the selection of a hive, his preference was decidedly in favor of the Langstroth. He uses frames fourteen and a half inches long and nine inches deep, also those of the same length and ten inches deep. He found

bee-keeping an exceedingly profitable undertaking. He had used the extractor, but found considerable prejudice against it when attempting to put strained honey upon the market.

Mr. W. G. Smith of St. Louis (secretary of the association), made a few remarks in regard to keeping bees for profit, and as corroborative evidence gave some figures taken from the proceedings of the Northeastern Bee-Keepers' Association. Mr. Smith reported the sale, last season, of over 4,000 pounds of honey, a large part of it having been extracted. He didn't wait for bees to cap, but used the extractor in taking the honey as fast as the comb was filled, never disturbing the honey of the brood chamber. He had been a bee keeper for fifteen years and had always kept from ten to forty colonies, and favored the Langstroth hive. He had found bee keeping a very profitable employment, especially in Missouri, yielding 45 per cent. interest in the hands of practical apiarists. •

Mr. A. W. Windhorst, of St. Charles, winters his bees in a cellar. He uses the Langstroth hive mainly. In 1874 he took from ten colonies and their increase, fifteen hundred pounds of honey; and in 1875, from sixteen colonies and their increase, he took two thousand pounds. He has the Italians and thinks them superior to the blacks. He has some hybrids, and thinks the first cross good workers.

Dr. G. C. Pitzer said that at one time he had been a very enthusiastic apiarian, but during the past five years had kept but few bees. He uses inch and a half lumber for making hives. In such hives, his bees winter very well. He thinks we should, in the care of bees, endeavor to conform to

nature as much as possible.

The first question for discussion then came up before the association: "Do bees make or gather honey?" Prof. C. V. Riley, being called upon, gave his views on the subject. He was fully convinced that bees did manufacture honey, instead of gathering it from flowers and merely depositing it as such. The nectar lying in flowers never would become honey, but it is taken up by the bees and passed through a state of semi-digestion, or excretion, resulting in the manufacture of what is called honey, yet still retaining in part the flavor or perfume of the flowers, by which we determine one kind of honey from another. In support of this theory an essay was read, from a botanist and chemist in Louisiana, describing the process of change undergone by nectar, in the stomach of the bee, in order to become honey.

Dr. Pitzer thought that bees gathered honey, but that it coming in contact with the acid in the stomach of the bees it there underwent a chemical change.

In regard to the question: "Do bees injure fruit?" Prof. C. V. Riley stated that it was unquestionably true that they did, yet the important office that the bees performed in the fecundating point would overbalance the damage they would do. He thought it was only in dry seasons that they destroyed grapes, yet that they could easily puncture the skin and destroy the fruit, he was fully satisfied. It was universally admitted that wasps could, and did puncture and destroy fruits, and is equally certain that bees can and do do it, in dry seasons when forage is difficult to obtain.

[To be Continued.]

Maury County Bee-Keepers Society.

The above named society met at the residence of Wm. J. Andrews, on last Saturday, May 6th. Present,

W. S. Rainey, President; C. C. Vaughan, Vice President; Wm. J. Andrews, Secretary and Treasurer; S. D. McLean, Travis McLean, Gen'l A. Bowen, D. Staples, R. H. Caskey, E. C. Overton, T. T. Martin, W. F. Moore, N. B. Sowell, J. C. McGaw, T. A. Sowell, W. R. Gresham, Isaac M. Boyers, T. A. White, M. G. Grigsby, of Giles Co., J. F. Love, and W. W. Oliver, of Marshall County.

The proceedings of the last meeting were read, and, on motion, adopted.

M. J. Grigsby, J. M. Byers, T. A. White, and T. T. Martin applied for membership.

The question, "Queen Rearing and Italianizing," was then taken up, and Mr. C. C. Vaughan called on to read his essay. Mr. Vaughan stated that he had not prepared an essay; that Mr. McLean had read one at the last meeting, which, he thought, covered the case and he would therefore ask to be excused. Mr. McLean moved that he be excused, and that the President appoint him to prepare one for the next meeting, and upon which Mr. Vaughan is to prepare an essay, is, "The general management of bees." Mr. McLean stated that it was expected that the President would deliver an address at the meeting in Culleoka. The President stated that he would do so.

The President then stated that we had met for the purpose of having the rearing of queens, etc., demonstrated in the yard, but before going into the yard would like to have an expression from the members as to the test of the purity of Italian bees. Our Secretary and Mr. Staples are representing that they are

furnishing queens reared from imported mothers, and we wish to have some evidence of that fact.

MR. STAPLES.—We have in our yard several strains of imported bees. We have the Dadant and Brown; also have queens of Alley and Nellis. We have certificates of Dadant and Brown showing that we purchased imported queens of them; of the different strains of bees he would let the members judge for themselves. He would show the different bees in the yard, and also exhibit his mode of rearing queens; the introduction of queen cells and virgin queens; transfer a hive in the presence of the members; and demonstrate anything else in his power.

PRESIDENT.—Had heard and read statements that Dadant was a humbug, and what he was driving at was to get from those present some evidence of the test of imported Italian bees before seeing them, so that they might be applied to the queens when exhibited.

W. J. ANDREWS.—Mr. President: anticipating this question, I have gone through all the back numbers of the Bee-Keepers Magazine, and examined all the authorities I could on this subject. Had made it a close study. I have all the articles on this subject marked, but to read them would occupy too much time. Had also written to Dadant & Brown on the subject, and had their replies which embodied the same ideas laid down in the books. He would therefore read to the Society the letters of Brown & Dadant. Dr. Brown wrote him as follows:

"*AUGUSTA, GA., April 29, 1876.*

Dear Sir:

I fear you will not like the queen I sent you. She is too *dark*, but a *QUEEN* for 'a'-that.' As you have seen her workers beautifully marked, this morn-

ing I had the pleasure of seeing her drone progeny for the first time, and they are beautifully marked. Besides she is an *extra large* queen. I may not get her equal in a hundred importations."

Before answering your questions I beg leave to indulge in a few remarks concerning Italian bees in Italy. Bees differ there very much in appearance. Some neighborhoods have more beautiful *strains* of the Ligurian than others. In the lower part of the country many of the bees are *black*. Often in the same apiary the bees are very different in their markings. All this goes to show that the Italian is only a variety and not a species. In all probability it is a cross between the Egyptian and the native black bee, modified by surrounding circumstances. See my article in the first volume of the "BEE WORLD," in reply to Ch. Dadant, who assumed the position "that all the bees in Italy were pure Italians."

* * * * *

Now for your questions.

1st. What is the test of purity of imported Italian queens? I know of no test of purity by their looks. I can only judge by the appearance of their progeny.

2d. Are imported Italian queens ever as black as our native bees? Yes, Sir. I have often found them quite as dark, but their color has nothing to do with the color of their progeny if they are from a light colored strain. From a long experience in queen breeding I find the *shade* of the *queen* is influenced very much by the color of the cell in which she was hatched. Opaque cells are liable to produce dark queens; while light colored or transparent cells produce light colored queens.

3d. How should the workers be

marked? 'How should they' depends considerably upon the breeder's fancy. I must confess I admire most the lighter strain, while others admire the dark. The progeny of imported queens differ very much in appearance. I have seen queens that produced beautifully marked progeny—light—while others produced a few that were quite as dark as our native black. This difference I would find in the same invoice of queens, but still when the dark Italian was placed by the side of one of our *native blacks* there was a very perceptible difference in appearance—not only in the shape of the abdomen, but in the markings of the segments. As a test of purity I consider that the workers should have *three bands*: first band, next the thorax, narrow but distinct; second band, adjoining the above, the widest and most distinct, but can be very plainly seen when the abdomen is extended with honey. In very young bees, and also in very old bees, it is hardly perceptible. The shade of these bands differ very much with the progeny of different queens. Some are light; others dark mahogany or leather; while others have a dark brown appearance bordering on black. I consider the difference that some claim of the honey gathering capacity of the above shades to be all a matter of moonshine. The working capacity depends much upon the vigor of the queen, and the condition of the colony when the harvest commences.

Very truly yours,

J. P. H. BROWN.

Mr. Chas. Dadant replied as follows:

HAMILTON, ILL., April 23, 1876.

Pure Italians should show the three yellow rings when the abdomen is full. Sometimes the rings are dark; sometimes they are light. We prefer the

leather colored ones. Still we have imported bees of very light shade, especially those we received last Fall. Peaceableness is the best test of purity in our opinion. We have no imported queens as dark as the native.

Yours,

CHAS. DADANT & SON.

Now, Mr. President, in ordering our queen of Chas. Dadant & Son, we wrote for a *light* colored one, and when we come to exhibit the queens, and you make the applications as given in the letters just read, we wish you to bear in mind the following sentence of Dr. Brown's letter: "She is dark, but a QUEEN for 'a' *that*," and the following of Messrs. Chas. Dadant & Son: "We have no imported queens as dark as the native." I will only add that I am well pleased with the *dark* queen purchased of Dr. Brown, but consider myself humbugged or swindled with the *black* queen got of Messrs. Dadant & Son.

S. D. McLEAN.—There are several others present who have imported queens, and we would be pleased to hear from them.

J. F. LOVE.—I prefer to have bees show bands of some sort. I got an imported queen of Dunn, which was dark compared to home bred queens, but her progeny was well marked. Her drones were large and well marked. The strain of bees was such, as Dr. Hamlin preferred. His neighbor, Eli Coble, had an imported queen also, which resembled his very much, and her progeny was also well marked.

M. S. GRIGSBY.—Had an imported queen purchased of Dadant. Was well pleased with her. Her bees were leather colored and uniformly marked. They were easily handled, and adhere well to their combs.

Mr. Love was called on to state what experiedce he had had in rearing queens by grafting or inoculating.

J. F. LOVE.—Had reared some queens in that way. It is done by removing the queen of a black or hybrid stock, and allowing them to construct queen cells. When these cells are three or four days old, remove the grub or larvæ, and insert a grub or larvæ of the same age from the worker cell of the queen it is desired to rear one from. He thought it about the best way to Italianize an apiary.

MR. STAPLES.—With proper management, do you regard it a sure process?

J. F. LOVE.—If proper care was taken it was certain. Eli Coble had succeeded with it.

M. J. GRIGSBY.—Had transferred quite a number, and had been successful with fully one-half.

C. C. VAUGHAN.—I disapprove of the whole arrangement. Thought it would keep stocks queenless too long. It was best to rear and insert queen cells.

W. J. ANDREWS.—While Mr. Staples, Mr. Vaughan and myself were all partners in queen rearing, we would have to differ upon this question. He took issue with Mr. Vaughan, and thought in many instances a colony might be supplied with a choice queen sooner than by waiting for the rearing and inserting of a cell. Only yesterday he had found a stock-queenless, and with cells about four days old. In that case he had cut off the cells, and inserted eggs from a choice queen. Whereas had he transferred he would have gained four days time.

The members then went into the yard when Mr. Staples opened the hive containing Dadant's imported queen and exhibited her to all present. All agreed that they did not want any such queens,

and several pronounced her no more than a common black queen. Mr. Grigsby stated that she in no way resembled the queen he got of Dadant.

The next hive opened contained a very bright home bred queen. Then the one containing the Brown imported queen. Every one expressed themselves as well pleased with her. Mr. Grigsby and Mr. Love stated that she was about the same strain of bees as their imported ones.

Mr. Staples then went through the process of catching and caging a queen for market, removing and inserting queen cells, and other things pertaining to the business.

Dinner being announced, all partook of it, after which Mr. Staples went through the process of transferring a stock of bees from a box to a movable frame hive, at the conclusion of which the Society was called to order. All expressed themselves well pleased with his manipulations, and no one received a sting during the whole day.

On motion the Executive Committee were granted until the regular meeting in July to prepare their report.

PRESIDENT RAINEY.—Mr. Oliver has been telling me about his crop of honey. I would like to have him make a statement of it to the Society.

W. W. OLIVER.—Last Spring commenced with ten full colonies—four double story and two nuclei: increased to 28 during the season: doubled to 20: extracted 2,100 lbs. Lost only one, and that a nucleus. Use the Langstroth frame. Don't know anything about box honey. Waited for and took sealed honey.

M. G. GRIGSBY.—Thought the experience of others who had not succeeded so well should be given also. (He was then called on to give his.) Had 26

colonies: doubled them and extracted 1,800 lbs.

J. F. LOVE.—Had 35 two story and 35 single story hives: got 4,000 lbs: lost none.

S. D. McLEAN.—Had 38, mostly deficient in comb: yield 2,000 lbs.

A. BOWEN.—Was Italianizing. Extracted from 5 only. Got 25 pounds to the hive. Lost two. Balance of his stock, 26 in number, in good condition.

C. C. VAUGHAN.—Had run for queens and increase. Lost one.

D. STAPLES.—Had run for bees and honey. Had no record of his crop.

R. H. CASKEY.—Had run for bees. Started with 24. Lost one.

T. T. MARTIN.—Had 40. Lost 19. His were mostly in log gums. All he lost were in log gums.

R. H. CASKEY.—I move that each member note the number of hives he now has on hand, and report at meeting in October the increase and amount of honey obtained.

M. G. GRIGSBY.—I move, to amend the motion, that a record be also kept of the Spring losses and a report made of them.

The motion with the amendment was adopted.

R. H. CASKEY.—I want to Italianize, and would like to know the best time to do so.

D. STAPLES.—Do it immediately after the poplar harvest.

T. T. MARTIN.—Is it advisable to divide when transferring?

D. STAPLES.—If you want to increase in bees, yes.

C. C. VAUGHAN.—I move we now adjourn, to meet the first Saturday in June at Culleoka, which, being seconded, was adopted.

WM. J. ANDREWS,
Sec. and Treas.

For the Bee World.

Are Dadant & Son Humbugs.

MR. EDITOR:—Please insert the following letter, with our answer, in the next number of our paper, together with the report in full of the Maury County Bee-Keeper Society; as it will be sent you by Mr. W. J. Andrews, its secretary.

COLUMBIA, TENN., May 10, 1876.

CHAS. DADANT & SON:—Sirs: Last August or September I ordered of you an imported queen, stating distinctly in my order that I wanted a light colored queen, which you had previously stated you would furnish me. When the queen arrived I wrote you that she was very dark, but that I would not cry humbug, like Mr. Kannon, until I had tested her. In reply you wrote that "you had not humbugged Mr. Kannon," and that if you did not send me a very light queen it was because you only had then five imported queens in nuclei.

Now I have waited for "some time" to fully test the queen I got of you. In a recent card to Staples and Andrews you say that "pure Italians should show the three yellow rings," and "we have no imported queens as dark as the natives." Now we have in our apiary both the queens you sent Kannon and the one you sent me. Now, I say that they are both as black as the natives. The one sent Kannon will, in her progeny, now and then show a yellow spot, and her daughters are all black.

In the one you sent me her daughters are all black, and I have yet to see one of her workers that showed a single yellow spot, much less the three yellow rings. Believing myself swindled, I wrote an article to that effect to the BEE WORLD, which should have appeared in the May number; but my

letter was cut into and continued a portion of it for the June number. The portion continued contains my criticism on you. At our last county society I also took occasion to criticise you in strong terms; which criticism is now in print, and a copy of which I will forward you. You need not think that because you are an advertiser you can safely consider yourself encased in a bomb-proof citadel; for if the ear of bee-keepers cannot be reached in other ways, they can by a personal circular; and as to the cost of such a proceeding, I regard it not at all; for when I conceive myself swindled, ten times the amount of which I am swindled out of would not deter me from making it generally known. I would under no circumstances send out a daughter of the queen I got from you, even as a dollar queen. I feel it a duty I owe to my fellow bee-keepers to advise them of these facts, and if I cannot through the journals devoted to their interests, I shall do it in a circular addressed to them, and I have the addresses of fully 2,000 bee-keepers. Yours etc.,

W. J. ANDREWS.

Now for our answer:

We want to have all our dealings openly ventilated. We have never asked an editor the favor of having complaints against our honesty thrown in the waste paper basket, for such a request would be an insult.

On the 24th of June, 1875, Mr. W. W. Kannon, of Pleasant Grove, Tenn., received an imported queen from us. On the 2d of August he wrote us that the queen produced some black and some two banded workers. To guard us against imposition, we always mark on our book the number of the hives from which we send the queens. On the receipt of this letter we repaired to

the hive, No. 212, where the queen sent had been introduced at her arrival from Italy, on the 24th of May, where, therefore she had laid for 20 days, and we were unable to find in it a single black or impure worker. We answered Mr. Kannon accordingly, refusing to send him another queen. Mr. Kannon wrote us a second letter, saying that he would box the queen and send her back to us. In reply we answered that if he would send the queen "with an affidavit that she was the same queen he had received from us" we would replace her immediately.

But the queen never came. Now has Mr. Kannon the right of crying humbug, since he has not profited of the opportunity offered? And why did he not profit of our offer?

On September 21st Mr. W. J. Andrews received from us a nucleus with imported queen. The queen had been introduced in the nucleus on August 16. She had laid in that nucleus for more than a month, (36 days). Mr. Andrews complained of the color of our queen. Indeed, we had promised him a light colored queen; instead of a queen he sent for a nucleus; and as we had then but five nuclei with imported queens, our choice, instead of extending to 50 or 60 queens, was limited. Yet Mr. Andrews, in his postal card, September 21 adds: "If her progeny proves to be like some of the bees with her, leather colored, she will prove just the queen I want."

On September 24th he wrote us that he had formed a partnership with Mr. Staples, and that Mr. Staples, a beekeeper of 40 years experience, had pronounced our queen a hybrid.

Let us notice that the queen sent did not look then as a "black" but only as a "hybrid" queen; and that the

queen, which was shown by Mr. Andrews at the Columbia Society, was pronounced a black queen.

Let us remark also that when our queen was sent, in September, her progeny was hatching every day; that the queen has continued to lay, for two months, under the eyes of Messrs. Staples & Andrews, and that these gentlemen had all the time necessary to notice that our imported queen "produced none but black workers," and that it is to be wondered how they did wait "eight long months" before complaining.

Let us notice also that last winter the same Mr. Andrews, in a paper of his county, wrote one or two articles saying that we were reliable business men, and that he took care to have a copy of their papers sent to us.

Now we say that the queen exhibited by Mr. Andrews was not the one we sent him.

1st. Because we have never received nor sent imported queens as dark as the natives.

2nd. Because our queen was not so really dark, being the lightest colored out of five in nuclei.

3d. Because it would have been materially impossible for us to send a black queen, even if such had been our wishes, for we had at that time no black nor even hybrid queens in our apiary numbering about 150 colonies.

In proof of this we can refer to Mr. A. N. Draper, of Upper Alton, Illinois, who was present at one of our receptions of queens from Italy, on the first of August, and who has seen us killing, as worthless, the few queens that we had in our home apiary, whose progeny was of doubtful purity; and who accompanied C. P. Dadant at our Sonora apiary, bringing 6 or 8 pure queens to

be introduced there to make room for the imported ones, for want of a sufficient number of impurely mated queens to be replaced.

But to explain how the change of queen took place in the apiary of Mr. Andrews is very difficult. Especially as Mr. Andrews is very sanguine about our supposed dishonesty. Mr. Andrews is a young bee-keeper, and he has, by some mistake, had our queen replaced by one of his black blood.

If Mr. Andrews continues the business of selling queens, he will now and then be called dishonest, owing to inexplicable circumstances, of which he will have no control.

In presence of such accusations, we ask Mr. Rainey, President of the Maury County Bee-keepers Society, to here tell us where he read and who told him that Dadant & Son were humbugs.

Please, Mr. Editor, open your columns to all the complaints against our dishonesty, as well in behalf of our dealings, for we want to see the matter fully investigated.

We do not claim to be infallible, but we claim that all the mistakes ascertained by us were always immediately repaired, yet we have always refused, and will always refuse energetically to make concessions if we are sure to be right.

CHAS. DADANT & SON.

For the Bee World.

How I Manage Bees No. 7.—Handling Bees.

REV. M. MAHIN.

The rules for the easy and successful handling of bees have often been given but the novice needs line upon line, and precept upon precept, upon this as upon other matters connected with bee-culture.

It is generally, though not always,

necessary to use smoke. Several kinds of smokers are in use, and different materials are used to make smoke. My method is very simple and easy. I go to the woods, and procure rotten wood. Beech is the best I have tried. I select that which is not too much decayed to hold together well, but sufficiently to burn readily, and cut or split into pieces something more than inch square and of any convenient length. This I put away in a dry place until wanted, and always have a good supply on hand. I have a section of an elder stalk, about a foot long, and two years growth, with the pith punched out. Having set one end of a piece of smoke-wood on fire, I blow through the elder and direct the smoke to the desired point. This is much more convenient than blowing the smoke with the mouth without a tube of some kind. I am indebted for this idea to the late Moses Quinby. When about to open a hive the bees of which I apprehend may be disposed to sting, I blow smoke in at the entrance and wait a few moments for the bees to fill themselves with honey and then remove the cap, and blow a little more smoke at the top. I aim to use just as little smoke as possible. A hive should not be opened in a hurry. The honey board or quilt should be raised very slowly and gently. Bees may be handled with impunity by being very gentle, which would become unmanageable by rough treatment. I use open top frames in that respect just like the frames in the Langstroth hive, and consider them superior to all others. In lifting out the frames I use a saddlers claw-tool to loosen them. Beginning on one side I move the third frame from the side over towards the fourth, diminishing the distance between them, but being careful not to put them so

close together as to crush the bees, I then in like manner move the second one as close as I can with safety to the to the third. This gives ample room to lift out the first. Then the others can be taken out in succession, or they can be moved somewhat apart and any one can be taken out. If I wish merely to look through a hive to find the queen, or any other purpose, I take out one frame and set it away, and lift out the next and examine it and set it back in the hive close to the wall, then I take out the next, and so on through.

It is very important to avoid quick motions. Suddenly withdrawing the hand from the bees will often provoke them to sting. I have had them, many a time, to dart out on my hands when, if I had moved them, I would have been stung, but when I held them perfectly still, the bees looked as if they did not know what they were there for, and left without stinging. I have seen bees smoked unmercifully—smoked until many of them lay on the bottom of the hive in convulsions, and that when there was no need of it. In extreme cases it may be necessary to smoke them to stupefaction, but ordinarily it is a needless cruelty.

Generally I do not use a veil, but when I have to handle very cross bees, I tie a common piece of mosquito bar over my hat. If bee stings hurt me much I would always do it, but if I get stung, even about the face and eyes, it gives me little pain and generally produces no swelling.

I not only wintered my thirty-seven stocks without loss, but I have springed them without loss. I will tell your readers some time how I do it.

New Castle, Indiana, May 11, 1876.

WRITE out your experience for the benefit of others.

Expounders of Bee Culture.

T. S. ROYS.

MR. BEE WORLD:—I find in the report of the proceedings of the North-eastern Bee-Keepers Convention the following:

"Whereas, We have been called to mourn the unexpected death of our honored brother, Mr. Quinby, &c.

Resolved, That in his death bee-keepers throughout the civilized world have sustained an irreparable loss, and bee culture has lost its most practical writer and ablest expounder."

Mr. Quinby was truly a very practical writer, not only upon the subject of bee culture but upon various other subjects, and while I have all due respect for his memory I disagree with those North-eastern gentlemen in the use of those adjectives in the superlative degree. I believe in being just and kind to the living. I think the most practical writer and ablest expounder of bee culture is still in the land of the living. He lives not more than a thousand miles from Oxford, Butler county, Ohio. He not only needs our sympathy but he needs what belongs to him as well, and if those that have appropriated the fruits of his labor to their own use, without a just compensation, would pay up it would place him beyond the reach of need; it would be a competency.

I am not insinuating that these parties are wholly in the North-east. I can name them in my own vicinity. They are everywhere.

Bees are doing very poorly owing to the extreme cold and wet, although some in advance of last season, and stocks are in much better condition for business.

Columbus, Wis., May 11th, 1876.

For the Bee World.
Scraps from Illinois.

WILL M. KELLOGG.

Adam Grimm! And still another of our old time bee-keepers is gone; one of those whose experience reaches back years before we even thought of bees, before many of us were born, even. Long will I remember the day spent with Adam Grimm at his apiary in Jefferson, Wisconsin. One could read welcome all over his genial German face as he extended his hand to grasp that of a visiting brother bee-keeper. I learned many things while there and one of the greatest was to discard the tight top bar for the open top bar frame.

I have a bee-feeder bought of him that will always remind me of Adam Grimen.

THAT QUEER DISCOVERY.

I still have the two queens in one hive, found on the 6th of April. The young queen unfertile, has no wings at all but seems as spry as a cricket. The old queen keeps right on with her work and never seems to mind the young one. Who can beat it. I have never heard of two queens staying so long in one hive, nearly six weeks now.

THE SEASON.

Have had six days of warm nice weather. All kinds of fruit trees are literally *crammed* with flowers all over this section of country, and we have better prospects for a large crop of fruit than I ever saw before. Then we have acres and acres of dandelion in full bloom. Bees are doing their level best, raising lots of brood and lugging in the honey, but there is not one bee to a hundred flowers. Since writing my last, I have lost one stock, queenless. But our old hat is still on the swing for the season of '76.

Friend Andrews you were partly

right in your predictions as to our Springing, for our stocks dwindled some, tho' not to the extent of last season, but bees are at work so hard now on honey and brood raising, they will soon build up all O. K.

BEE-FEEDERS.

Friend A. has described his bee-feeder, now I will describe mine, pattern got of Adam Grimm. A tin can 4 inches high, $4\frac{1}{2}$ in diameter; in the centre of top cut an inch and a half and solder over with perforated tin; between centre hole and outer edge cut another hole $\frac{3}{4}$ inch in diameter and solder onto it a screw cap like those used for kerosene cans; on the outer edge solder a strip of tin about $\frac{3}{4}$ or $\frac{5}{8}$ inches wide; to use, take off the screw cap, fill through a funnel, screw on cap, and insert it quickly over the hive, on the frames, or over a hole cut in the quilt as we use it. The strip of tin on the outer edge raises the feeder up so the bees get at hole in centre of can and keeps the heat in at the same time. you can tell when it is empty by tapping on it with your finger, like trying a ripe melon. We keep ours painted and varnished and they will keep for years. We get them made for \$2.00 per doz. Hope you will understand the way to make them. They must be made air tight or they will leak.

Oncida, Ill., May 14th, 1876.

For the Bee World.

Reply to Beginner.

BY D. A. PIKE.

MR. EDITOR:—It gives me pleasure to enter into an argument concerning bee-culture with a fair and honest opponent. I do not set up my ideas as law by which others must be governed, but whatever I do write is the result

of careful reading, observation, experiment and study. What I do I am willing to have men see. I do not wish to sail under false colors but hoist my own, never once feeling ashamed of them, and when I "crack nuts" I always like to know with whom I am cracking them.

Had the writer who signs himself "Beginner" come out with his full address, I should have taken pleasure in answering his queries, but as his manner has in it an air of taunt and expresses anything but the feeling of an honest inquirer, I refuse to reply to them. The beginning of his article sounds very much as the voice of a jealous bee-keeper. One who would, if he could "old fogy like" destroy everything which does not accord with his ideas.

If any sincere and honest bee-keeper wishes to ask any information in regard to the Albino bees I will freely and cheerfully give such information either through the columns of the paper or by private letter.

Smithsburg, Md., May 17th, 1876.

For the Bee World.

Sundry Notes.

DR. JEWELL DAVIS.

MR. EDITOR:—Improvements in Bee keeping are intimately connected with progression, and hence should be found in every part of scientific bee culture, not only in the best improved hives, but also in everything else pertaining to the business. A hive should have movable frames, that can be handled with the greatest ease and the least inconvenience to the operator. Frames that are always glued fast by the bees, are an annoyance, both to the operator and the bees, in our attempts to move

them. Frames that, likewise, have the combs built crosswise of the frames gives the bee-keeper much trouble, especially when several of them are thus attached together by the combs. These frames then to be useful must have straight combs in them. A hive then with movable frames, be they patent or otherwise, if they are or can be kept movable, are an *improvement*, for in this case they can be handled at the will of the bee-keeper; whilst if they are filled with combs running crosswise of the frames they are rendered useless and are no improvement over the old box hive for bee keeping. Again, let our hives be ever so complete with movable comb frames, and straight combs within them, yet the manner of applying the surplus boxes and other fixtures are anything but improvements in bee culture. Shall I say then that because some of these are impediments to the manipulation of the comb of the comb frames, that we must therefore dispense with them. Certainly not. What then shall be done? I answer, use the comb frame hives, and by all means obtain straight combs within them, by causing the bees to build all new combs between old straight ones, or by using the comb foundations, and all other impediments to the handling of the combs, whenever that may be, should be removed. But few of even our patent hives are clear of these objections. Even the noted honey-board, being important at some seasons of the year, is nevertheless in the way at other times. The same may be said of quilts and other covers, hence remove every incumbrance in its season and have access to the bees at all times when desirable. Our bees in Illinois, I mean where I live, are nearing the swarming period, now being full of bees, and

drones plenty on the wing daily. The fruit bloom has given them a golden harvest and they have not shunned to improve it, nearly all the time for three weeks. I would say again do not forget to provide plenty of pasturage for your bees whenever and wherever it can be done. I noticed to-day the white clover is beginning to bloom—it is our chief dependence here.

Charleston, Ill., May 12th, 1876.

For the Bee World.

Contributors.

J. M. HARRIS.

MR. MOON:—I see that friend McLean, of Tennessee, takes some notice of my article on "Georgia Writers." While I do not object to anything he says, I am constrained to ask if he means what he says.

For instance he says, "South of Tennessee we find sixty-one contributors, while Tennessee alone furnishes fifty-two. And further: from two hundred and thirty-one contributors, Tennessee and Illinois furnishes ninety-nine."

Now I suspect he means to use the worn "Contributions," instead of "Contributors," for if there are really "two hundred and thirty-one contributors" to the BEE WORLD, I do not wonder that you have several communications lying over for the next issue. I am glad that friend Mac has taken pains to locate the principal contributors, for perhaps it may have a tendency to spur up more southern bee-keepers to give their experience in apiculture, if nothing more. Though we admit that Tennessee has taken the lead in support of the BEE WORLD, we are consoled with the thought that she is very near akin to Georgia, there being only an imaginary line between them. Besides we

get a good deal of good reading from there, and so we are glad that Tennessee can bear the palm since we cannot claim it further South.

Bees increasing in numbers, but gathering no surplus honey.

Cedartown, Ga., May 15th, 1876.

For the Bee World.

Weather Notes for April, 1876.

Taken between 7 and 8 o'clock A. M.

WM. J. ANDREWS.

Day	Ther	Weather.	Wind
1	51	Cloudy; rain last night	S-E
2	52	" " windy	S-E
3	50	" "	South
4	44	Clear	North
5	0	No notes taken	0
6	46	Clear	N-E
7	40	" "	N-E
8	52	Cloudy	N-E
9	60	Clear	N-E
10	60	Cloudy	South
11	63	Clear [pollen	South
12	67	Cloudy; bees gathering	S-W
13	68	Raining; rain last night	S-E
14	50	Cloudy; windy	West
15	52	Clear	West
16	60	" "	N-W
17	42	Clear; cold rain last night	West
18	40	" "	N-W
19	44	" "	N-E
20	57	" "	South
21	58	" "	North
22	62	" "	N-E
23	65	" "	South
24	72	Cloudy	S-W
25	48	Clear	North
26	50	" "	N-E
27	58	Cloudy	South
28	64	Rain	South
29	54	Clear; rain at night	N-W
30	68	Cloudy; rain at 11	South

Columbia, Tenn., June, 1876.

For the Bee World.

Conflicting Theories.—Light Wanted.

NEW RICHMOND.

MR. EDITOR:—A new new Richmond in the field! One who desires information and would like to see the various theories of your correspondents

reconciled. An experienced brother says that he has tried artificial swarming to his hearts content, but will practice that mode no longer, therefore will rely upon natural swarming. Another says transfer to other hives, thereby increasing the number of colonies and cut out and destroy queen cells, not wanted. Which oracle shall I rely upon?

One brother says that a queen is impregnated once and that for life, all right, and if the pure Italian queen is impregnated by a black drone, her progeny will be pure Italian bees. The laws of hybridity are as extensive as nature, and well defined, both in the animal and vegetable kingdom. Why make the bee an exception to the general rule. The Durham cross with the common stock gives me a grade animal superior to the common stock, but decidedly inferior to the thoroughbred. The same in my orchard, flower garden and strawberry bed. Yet my bees are left out in the cold. They must assume the idiosyncrasies of the mother, possibly because she came from Italy.

I am trying to get the best gum or hive possible, as a dwelling for a few colonies. One brother says that he has the *ne plus ultra* in that line, and another says "seek no further, I have the grand desideratum." My good friend let me say, to whom shall I go. Time is money and I cannot afford to waste either unnecessarily.

I have a few imported bees, so called, in the Thomas hive. I examined hive No. 1, and all the bees looked to me, as very dark in appearance, a little ring-streaked and striped. Hive No. 2 appeared to be considerably ringed around the abdominal regions with dark yellow stripes. No. 3 had a beautiful golden hue, with a small dark ring intervening between each yellow stripe. No. 3. is

our pet. I went back to No. 1 and seated myself close to the front of the hive and I saw about 400 black tailed drones marching in and out. I cut off 201 tails, by count, in the space of 30 minutes, and I intend to cut off the remaining 199 tails in a few days. I don't want this bad blood in my one-horse apiary. Not only that, but I expect to treat No. 2 the same way, and furnish male stock exclusively from hive No. 3, and cut out the drone comb also in No. 1 and 2 unless you advise to the contrary. Understand me, I am working for light, and am too blind to lead anybody. I have been considerably inoculated recently by bee poison, but it don't seem to give the workers much distaste.

Shreveport, La., May, 1846.

For the Bee World.

The \$100 Premium.

E. C. L. LARCH, M. D.

FRIENDS OF THE BEE WORLD:—I find that Mr. Argo has not accepted my proposition to compete for a \$100 prize at our St. Louis Fair. I will, however, extend the invitation till just time to make arrangements for exhibition, as I suppose he is afraid to accept the offer until he sees his honey; but as he demands this advantage, I grant it. I hope my offer will be understood as extending to the whole civilized world, and to every kind of extracted honey. If our friends of the Pacific coast think they really have a superior quality of honey let them compete with us. What I want is to know where the best honey comes from and from what it is gathered; and I hope that the premium is large enough to excite a lively competition from every quarter of the Union. I hope that Mr. Nesbit, if he really intends to take Mr. Argo's place,

will be more liberal and represent a *true Kentuckian*, and instead of the paltry sum of five dollars go any amount necessary to make the desired premium. I will accept any conditions suitable to a majority of exhibitors. I would suggest that each exhibitor name three good and competent judges and that the board of directors be required to select the judges from such number if enough are present, and if not then select the most competent persons available. It is a good suggestion to have the honey sold to defray expenses; it would also be well to have one or two smaller premiums, and in the absence of such give certificates in lieu of the premium. I hope enough will respond in time so that each exhibitor may know his amount of the premium. Will some of our friends of the South compete with their honey gathered from the orange blossoms of the sunny south. It must be delicious.

Ashland, Boone Co., Mo., May, 1876.

Notes and Queries.

CONDUCTED BY

WM. J. ANDREWS.

DEAR BEE FRIEND:—I was rejoiced on our last mail day to receive the March and April Nos. of BEE WORLD. It had been so long since I had seen a No. of your valuable WORLD that it was a rich treat indeed. I must plead guilty to the charge of writing you an occasional letter from purely selfish motives, for I am well aware that I am unable to enlighten or entertain any of your many readers. I am a seeker after knowledge in beeology, and from a careful perusal of the many useful and interesting letter, with which your journal is filled, and practicing what

I read in the meantime, I hope to be able some day to give information to those who, like myself, strike out unaided and alone in that very fascinating and important branch of rural industry, improved bee culture. I dare say, Mr. Editor, that there is not a reader of your journal who has undertaken bee-keeping under such unfavorable and discouraging circumstances as myself. I verily believe that the people of this community think that I, like Mrs. Tupper, have gone deranged. It is utterly impossible to convince them of the superiority of my movable framed hive to the old box and log gums. Their great-grand fathers always used the old box gums and made plenty of honey, and they don't care to change their style of keeping bees for any of the "new fangled" notions of these days. But I did not set out to write this with the intention of slandering my neighbors, but ask for some information. Being unable to purchase any bees as I desired to do this spring—"bad luck to sell bees"—my intentions is to turn my attention this season exclusively to increasing my bees rather than taking honey. Will some of you learned bee-men tell me the *quickest, surest and safest* method of dividing and increasing bees. I want to divide as rapidly as it can be done with safety, but not to continue it so far as to have no dividend, divisor or quotient left. I use the Thomas hive, and would like to know if Moon's improved hive is an improvement on this, if so in what the improvement consists. My bees are doing well, storing honey rapidly, for our yard, garden and orchard are literally covered with blooms. I see much said about giving bees flour as a substitute for pollen. I have tried my bees repeatedly but never seen them touch it.

I have placed bits of honey near it to attract them, but they treat it with perfect contempt. I keep a large shallow stone basin of water in my apiary all the while, and occasionally throw a handful of salt in it, and I am sure there is not an hour in the day, scarcely a moment, but bees can be seen on the edge of the basin drinking. One would scarcely believe it possible for them to consume such a quantity of water. I had a swarm of bees come out this Spring and after "settling," return immediately to the hive where they remained a week before they swarmed again. What could have caused such proceedings? I purchased of Land, of Wisconsin, seed of several varieties of bee-plants, but regret to say the seed have not germinated well at all, with one exception however. The Chinese Mustora sprouted well and is now in full bloom, I was not familiar with any of the plants, consequently had to guess at them, as the names of the different varieties was not marked on the packages at all, notwithstanding I specially requested that it should be none that I might know one from another. The basswood if the seed are small nuts, similar to hickory nuts, only gave me two plants from an entire package. From several packages did not get a plant though perhaps the fault was in me not the seed. I have buckwheat and lucerne now in full bloom. I am sure my bees ought to do well if there is anything in having flower abundant. I think it good economy to make their trips for both honey and water as short as possible. At least I am endeavoring to have both convenient to my bees.

KATE GRAYSON.

Nisbny, Coosa Co., Ala.

Miss Kate, you have no idea the

pleasure it affords us to again give you a welcome. Accept our thanks for your very complimentary remarks of the BEE WORLD. We fully appreciate the difficulties you labor under in your endeavors to "establish the superiority of the movable frame hive to the old box and log gums." It is like all other new pursuits that one leads off in—those around them who are not as far seeing and with no disposition or turn of mind to investigate for themselves, are ever ready to cry down others who have the disposition to do so, until their success is established, and when established are as eager to ape after them as they were before to discourage.

While the writer hereof lays no claim to being one of the "learned bee men," he will cheerfully tell you how he would act for himself for "the *quickest, surest and safest* method of dividing and increasing bees." The first step we would take would be the starting of nuclei to rear queen cells. On the tenth day your cells will be ready to transfer; then divide your bees, giving the largest portion to the old queen, and remove the hive containing the old queen to a new position, giving the others a capped cell and place them in the old stand. Do not give the new made or queenless stock any chance to build combs until the cell is hatched and the queen commences to lay. When your stocks thus divided become strong you can repeat the process, but be careful not to endeavor to increase too rapidly and you will not be left without "dividend, divisor or quotient."

We will give still another mode. If you have as many as nine hives, take from each of them one frame of brood and adhering bees and place them in one hive, being very careful not to remove any of the queens and give them

a capped queen cell, and when the hives from which you took the frames of bees are refilled, which they will do during the honey season in a day or two, you can repeat the process. By this mode you will always have strong stocks. Bees thus united will remain peaceably together.

Bees only partake of flour and other substitutes for pollen when they are unable to get it of blooms. We have had them to take it up freely.

If your swarm was a natural one, probably the queen did not leave the hive, or if she did may have dropped and got lost. If an unnatural or deserting swarm we are unable to give any definite answer. Many theories have been advanced on this score, but nothing conclusively arrived at as yet.

You are correct in giving your bees as convenient pasturage as possible.

A. F. MOON:—SIR: You request short notes telling how bees get along, &c. Bees so far with us are doing finely. They have been swarming since the 11th of April and swarms are the largest I have ever seen. I have extracted a little; could extract some more. Bees at work on white clover, brier berry and black gum. All seem to yield tolerably well.

Respectfully, T. B. PARKER.
Goldsboro, N. C., May 16, 1876.

The honey season opened on the 6th of May; quite good to date. Snow and frost killed so much of the early bloom that some bees died in April; others were damaged, consequently swarming is late and I fear the season will be poor.

W. R. BAKER.

Hernando, Miss., May 12, 1876.



MOON'S BEE WORLD.

A. F. MOON & CO.,
ROME, GEORGIA.

JUNE, 1876.

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A Prolific Queen.

In all of our experience in handling bees, we have never lost but one swarm to our knowledge until recently in our absence the Albino queen we purchased of D. A. Pike, which was four years old the present season swarmed and went to the woods. She was the most prolific queen in the apiary.

Humbugs.

Bee-keepers throughout the country have complained bitterly because we did not publish their communications relative to humbugs and swindlers. In our next will appear some of them one of the great complaints is against Mr. G. W. C. Gillispie, who is now located at Huntsville, Ala., and is travel-through the country claiming from parties a royalty for using a two story hive, we never knew of a patent being granted on a two story hive. We have used such more than twenty years ago and we believe such is common property. We will give our readers a chance to ventilate the matter.

Notice.

"*Union in Christ*" is the title of a neat illustrated Monthly, devoted to Christian Union and evangelistic work." Its editorial staff are clergymen of ability in different denominations and hereafter every number is to contain a sermon by the Revivalist D. L. Moody. It will be furnished a year to our readers when remitting to to this office, renewals or sending new subscribers by enclosing 30 cents extra for "*Union in Christ*." Regular terms 60 cents a year—25 cents to ministers of the Gospel and to agents. Sent on trial THREE MONTHS FREE with terms to agents. Address, H. A. King 37 Park Row, N. Y. City.

Recently we spent a short time with the citizens of LaGrange, Ga., we found but little or no interest manifested in bee culture, a correct system of this industry had never been demonstrated, the people were anxious to learn, and were ready to adapt themselves to the business and we may soon expect to see this noble branch move along.

Bees have swarmed but very little up to the present time, the cold, backward spring placed them one month behind their usual time, they are now beginning to store up some surplus honey.

We have given so much space in the present number to our correspondents, that our editorial has been crowded out hereafter we will try and interest our readers with a few scraps from our apiary.

We have frequent calls for alsike clover seed, those having for sale would do well to advertise in the BEE WORLD.

Many important questions have been deferred til our next, when each shall receive a careful answer.

Send along your communications early that each may receive its proper place.

A. I. Root, Editor of *Gleanings in Bee Culture*, Medina, Ohio, says of Barnes' Patent Scroll Saws:

This machine is one of the brightest illustrations of genuine Yankee ingenuity it has ever been our fortune to meet and the simplicity and fewness of its parts are really surprising, with the new and novel foot power the only wheel about the machine, except the saw can be instantly set humming like a top and one of the prettiest little saws can be attached to it in little more than a second of time, yet the whole is so extremely simple that even a child can do nice, true work at once. At our first attempt we sawed one foot of $\frac{3}{4}$ in. pine in six seconds.

The facilities this machine offers for rapid work and the way in which labor is saved in its construction are to us simply marvelous, we thought we did a bright thing when we devised our new extractor gearing, but we will yield the palm to the Barnes Saws."

I cannot subscribe for the BEE WORLD this year, as I have lost all my bees. The bees starved. My Italians I attempted to save by feeding on sugar sirup, but it killed every one that partook of it. I suppose it was because there was too much bi-sulphate of lime in the sugar.

S. L. SINGLETARY.

Clinton, La., February 5th, 1876.

LITERARY.

The Household is preeminently a ladies journal. Every number embraces a large variety of useful recipes, hints, home talks, &c., not found in other papers, which makes it almost a necessity in the family circle. Published at Brattleboro, Vt., at \$1 per year.

One of the best of our exchanges is *Moore's Rural New Yorker*. It is a large weekly, devoted to agricultural interests of the country; embracing topics on every department of the farm; everything that a large corps of editors and correspondents can bring to the public is found in its columns. Published at New York City.

"THE LOST CAUSE."—A magnificent picture 14x18 inches in size, beautiful in design and artistic in execution. It represents a Confederate soldier after the war returning to his home, which he finds lonely and desolate. In front of the ruined cottage, telling a sad tale of the miseries of the war, are two graves with rude crosses, on one of which some friendly hand has hung a garland. To the right the calm river and the rising moon indicate peace and rest. The stars, seen through the trees, represent the Southern Cross. It is a picture that will touch every Southern heart, and should find a place in every Southern home. One copy sent by mail, mounted on a roller and postpaid, on receipt of 25 cts., or three for 60 cts. Address John Burrow & Co., Bristol, Tenn. Agents wanted everywhere to sell our cheap and popular pictures. \$5 to \$10 a day easily made. No money required until pictures are sold. Send stamp for catalogue and terms.

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BEE WORLD.

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G. W. BOWEN, Rome, Ga.

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1776.

1876.

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P. S.—Be sure and give width, *under* top bar of frame.

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I have on hand a choice lot of queens, propagated in populous colonies last season, which I offer for \$5.00 each. As I expect to rear queens the coming spring, I offer two queens after 15th June for \$5.00. I will send out none until their brood is tested, and will pay express charges on same. Satisfaction guaranteed.

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Peoria, Wyoming County, N. Y.

Italian Bees and Queens for 1876.

AND

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HENRY DEAHLE,
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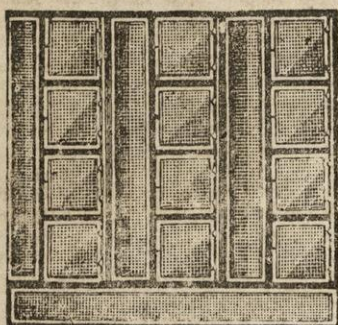
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