



Moon's bee world : a guide to bee-keepers.

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MOON'S BEE WORLD.

A GUIDE TO BEE-KEEPERS.

VOLUME 1.

SEPTEMBER 1874.

NUMBER 10.

Correspondence.

Notes from Arkansas.

BY W. A. SNIPES.

As I am one of your subscribers, I take the privilege of dropping you a few lines in regard to apiculture. Having commenced with the movable frame hive but two years ago my experience is quite limited, but I have learned something in that time. I commenced with eight swarms and have now fifty-six. I bought some and would have had more only for bad management, or, as some call it, bad luck.

My bees wintered very well last winter considering the year, which was the worst I ever saw. From forty colonies I only saved four hundred pounds of honey. Up to July 15th, this year, I have taken off twelve hundred pounds of fine box honey. I have lost several queens this summer. The cause I cannot give. Perhaps I

had taken some of them off in the honey boxes: some, perhaps, of old age. I did not find it out until it was too late to save them. A part of them had been taken possession of by the moth; but I never have seen a strong colony of bees destroyed by the moth. When a hive becomes queenless it weakens down so that they are not able to protect themselves, and the colony is soon full of moths. The old men of former days, that used the old log gum would say they were destroyed by moths, and you could not make them believe any thing else. Last July I bought one Italian queen and introduced into a colony of black bees with success. This spring they made an attempt to swarm; I picked her up in front of the hive, and as the bees were scattered in every direction I put her in the hive again. Next morning I found her dead in front of the hive. My only Italian queen! What to do I was at a loss to know. I examined the colony and found four queen cells, which I divided and put into two hives; and

both raised a queen. One was fertilized by a black drone which caused hybreds. I am now raising queens. Have raised four and introduced two; will introduce the other two at ten days old. I have never lost but one by introducing into a black colony. My plan for raising queens is: I have a small nuclei that will hold three frames with bees sufficient to raise them; say one quart, more or less. I keep them up by placing in brood comb. I place a card of brood from a colony that I want to raise queens from into one of my nuclei, and let it remain there about nine or ten days. I then make examination and take all the cells that can be spared and place them in other nuclei. Some say insert them in the comb in the nuclei, where they are not needed. They frequently, or invariably cut them down for me. I place them in a cage and as soon as they are hatched I turn them loose and all is right. At ten days old I introduce them into a black colony. If I wish to test them, I let them remain until I can see their brood, and in the same way proceed to raise more. I forgot to give you the amount of honey taken from my strongest colony: July 15th, seventy pounds of nice box honey.

Carson's Landing, Ark.

Structure of Comb.

BY CONNOISSEUR.

If the bee formed its comb like the wasp, having the opening of the cells toward one of its faces and the base toward the other, it is evident that the number of cells placed in one comb would have formed two combs—and two combs, each containing a single set of cells, would of course take up

more room than a single comb in which two rows of cells are united base to base. The bottom of the cells, instead of forming one flat square, is composed of three lozenge shaped pieces, so united as to make the cell end in a point; consequently, the whole is a hexagonal tube, terminating in a pyramidal cavity. If the two had been a single hexagonal tube, intersected by a flat instead of a pyramidal division, not only the shape would not have answered the purpose of the bees, but more wax would have been expended in its construction. Hence it appears that both the body and the base of the tube are the best fitted for their purposes; that the greatest strength and the greatest capacity are obtained with the least expenditure of wax, in a hexagonal tube with a pyramidal base.

As the bottom of each cell is formed of three lozenge shaped pieces, it is obvious that they might have been formed at any imaginable angle. As the bottom of the cells have a uniform inclination, it is clear that this particular direction causes the least expenditure of material.

Koeing, an able analyst, was asked to solve the following question: among all the hexagonal tubes with pyramidal bases, composed of three similar and equal rhombi, to determine that which can be constructed with the least possible quantity of matter.

Koeing, not at all aware of the object in view when the question was put, worked it out, and found,—that if three rhombi or lozenges were so inclined to each other that the great angle measured 109 deg. and 26 sec. and the little angle 70 deg. and 34 sec., this construction would require the least quantity of matter.

When the angles formed at the bottom of a cell were measured, it was found that the great angle gave 109 deg. and 28 sec., the little one 70 deg. and 32 sec. Such an agreement between the solution and the actual measurement is, it must be acknowledged, sufficiently surprising. It is impossible to look at a cell without fancying that some profound geometrician had not only furnished the general plan, but also assisted in its execution. The bees appear to have a problem to solve which would puzzle many a mathematician. A quantity of matter being given it is required to form out of it cells which shall be equal and similar, and of a determinate size, but the largest possible with relation to the quantity of matter employed, while they shall occupy the least possible space. By making the form of the cell hexagonal, the bee has answered fully all the conditions of the problem; this form occupies the least possible space, while its construction consumes the least possible quantity of material.

It has been stated that the combs are composed of two sets of cells, united by their bases. Now, if each set were first thoroughly formed, and then the two cemented together, it is evident that there would be a great waste of wax, since each of the cells would have a distinct pyramidal base. Instead, however, of proceeding thus, the bees take the bases of one set of cells as bases of those which they build on the opposite surface. If three pins be passed through the middle of each of the rhombus composing the pyramidal base of a cell, they will pierce three cells of the opposite surface; consequently, in each comb, the base of each cell is composed of three

rhombus furnished by three different cells of the other side of the comb.

Broken Pieces. Here a Little and There a Little.

BY KINCHEN RAMBO.

I am happy to be able to inform you that the two swarms of bees you transferred for me the 27th of July, are doing very well. But I shall have to feed them pretty freely, as we were not able to transfer much of their winter stores, on account of the tenderness of the combs—it being second crop. And I find that all my bees have been drawing upon their winter stores ever since the first of this month. O, how I do miss my Buckwheat, I don't think I will ever let another season pass without it, as long as I raise bees.—And that I expect to do as long as I live and keep my eyesight; and that too only in the movable comb hive with my double sloping bottom. For I can now bid defiance to the bee moth, whether I raise black bees or Italians. Next spring I intend to have the balance of my bees transferred into movable comb hives, and try my hand at artificial swarming; which I believe to be a good plan, if judiciously practised—not to see how many swarms I can make, but only just enough to prevent natural swarming.

And I am very much obliged to you, Mr. Editor, for your timely hint about watching the toads; for I was greatly surprised when I came to see what havoc they were making among my bees between sunset and dark. But I soon began to make havoc among the toads, and now my bees can rest in more safety at night; and I have destroyed nearly all the birds that were in the habit of catching them in the daytime—mostly

a red bird, that is the male is almost as red as the cornfield red bird; and the female of a dingy yellowish color, with a topknot on her head. Lookout for them, they destroy a great many bees. I hope, Mr. Editor, you will soon have a good supply of Mr. Quincy's Bee Smokers. They are a most excellent implement to use in the management of bees. But I find that unless they are kept constantly in motion the fire is liable to go out. To remedy this I dip about one fourth of my rags in a weak solution of saltpetre; and then by having all dry there is very little danger of the fire going out; and I do not see that it injures the bees at all.

Some of your correspondents insist that writers should give their postoffice address, so that others might correspond with them through that channel and obtain further information or explanation. But my notion is that all correspondence relative to bees ought to be carried on through the BEE WORLD. For there might be others desiring the same information and then all could be benefitted by the answers.

Floyd County, Aug. 20, 1874.

Cheep Queens.

BY H.

Some parties are so situated that they can afford to raise good and pure queens at half the price that other breeders can, differently located.

Others are willing to give their time and talant in this pursuit for half the price demanded by another; while there are other breeders who are probably more of adepts or experts in the business and can, under similar circumstances, procure a greater number of queens than another.

Of the nature and habits of the honey bee, much less the propagation and rearing of queens, what was known or understood about the business in the United States when the Italian bee was first introduced, compared with what is known to-day? Ten or twenty dollars for a single queen was then asked, and received by the few breeding them, but what would you think of the bee-keeper of the present time, and what would the breeder think, of receiving an order for a twenty dollar queen?

The price asked has nothing to do with their value or purity. We have purchased Italian queens from noted, trustworthy dealers and importers, paying the big price, that we might obtain superior bees, that were worse than worthless. The best queens we ever bought, cost us \$1.25 each.

The type is not yet fixed as Mr. Langstroth wrote several years since, reiterated by Mr. Dadant, in Aug. No. of BEE WORLD, that the Italian queen will duplicate herself every time, yet we would prefer to raise pure, tested queens at \$2 each and can make more money at that price if we could sell all the queens we could raise, than to run our apiary for honey at 15 and 20cts. per lb. So far as breeders establishing a fixed rate, at which they will sell and none other is simply out of the question. Supply and demand govern prices, always have, and always will do it. When the demand is greater than the supply prices go up, and visa versa.

Murfreesboro, Tennessee,

Buckeye Hive, &c.

BY SHERENDON.

How much interest has A. R. Weakes, of Jackson, Tenn., in the Buckeye bee-hive? He puffs this exploded hive

like a new, fresh hand at the bellows. How many difierent hives is this young American acquainted with, that the wonderful buckeye, "is the best he has ever seen and tested?"

Ye correspondent and his neighbors are old fogie enough not to be again caught with moth proof traps, and would be pleased for ye Jackson bee man to furnish a lyte of the different hives he has seen and tested, that ye readers of ye Bee Worlde may be enlytened, entertayned and profite thereby.

The Buckeye bee hive well made, of good material and nicely painted (the size used with us) is a superb fixin for a delicate swarm of bees and can be handled with perfect ease by women or ladies, whether they be "the gentlest and most delicate," or not; but that 150 lbs of honey, "good honey from these hives is wonderful" in such a season as the past, up to 16th June.

You may find old bee-keepers, brother Weakes, who have been keeping in an indifferent, loose way for a quarter or half century, you could coax into the purchase of a buckeye, and use for a short time, but another class of "ye old fogie kynde," if you were to propose to sell, would smile at ye, and say "olde birds are not twice caught with chaff."

P. S.—That white bee Rucker Baker tells about must be akin to those female drones of his.

To works of nature join the works of man,
To show, by art improved, what nature can,
Nature's great efforts can no further tend,
Here fix'd her pillars, all her labors end.

—Dryden.

The rule generally adopted for taking bees is for the second party to furnish hives, take care of the colonies for a term of years, and return old stocks with half of the increase.

Rambling Notes.

BY. G.

JULY NO. OF BEE WORLD.

"Any one having invented a hive for which he has obtained a patent has a vested right for the time to said patent and the laws protect him, etc., etc.—G."

"If any one has the money, it is not a very hard matter to obtain letters patent if it does infringe on some other patent granted."—SHERENDON.

This, to say the least of it is not very complimentary to the best government the world ever saw. South, this would be considered disloyal, but I do not controvert the truth of the gentlemans statment. Presume he speaks by the card, and knows the statement to be true.

TRANSFERRING BEES FROM BOX TO FRAME HIVES.

My experience is that it is not safe to transfer bees only in the honey season. If there are other hives in the apiary, they are almost certain to rob them. I lost two swarms in the last few weeks by transfering when bees were collecting very little honey; the whole apiary appeared to attack them in such numbers that I could not protect them by any of the usual modes. Those not experienced in transfering and protecting the transferred hive from robbers, should not attempt it, only in the honey season, then there is not the danger stated above, and not the necessity to feed, which must universally be done, when transferred late in the season.

Mr. W. M. Kellog asks if I am "sure the miller didn't have a chance to get to my ball of wax in the warm room." I think not, the only chance was

through the small key hole in the drawer of a table.

ITALIANIZING COMMON OR BLACK BEES.

Mr. Editor, as you have more experience in Italianizing bees and apiculture than myself, I ask you the following questions:

Cannot this be done by using Italian eggs instead of queens, and much better and with less expense? I take it for granted that it is a conceded fact that the eggs, like most other insect's eggs, can be kept a length of time; if so, why not import the eggs instead of the queens? by using eggs instead of queens it strikes me a large apiary might be Italianized in a few days and attended with but little cost. First, in the earley part of the season stimulate our Italian hive so as to produce early drones, take the queens from the black bees, and after 4 to 6 days (giving time for all eggs or young brood to be too far advanced to produce a queen,) open the hive, take out all drone brood and queens that the bees have on the way; and insert the eggs from the Italian hive, and might also, as soon as the Italians have drone brood give a few of them; and continue this process through the whole apiary until all had Italian queens, and Italian drones. Thus you would have none but Italian drones in the apiary to fertilize the young queens. I was struck with this plan a few days ago in putting in Italian queens. I let them remain six days; in one hive I found six queen cells capped over—looked like they would be ready to come out in three or four days. I have inserted three Italian queens within the last ten days, each of the cages, containing the Italians, had Italian workers. I found that the

bees, or some other cause, had killed all the workers, and in one cage found the queen killed. Do you suppose the bees killed the workers and the queen in the cage?

STANDARD HIVE, AND FRAMES.

Much interest is manifested in bringing the BEE WORLD to adopt a standard hive and frame. While I do think this would be desirable, yet I do not think it practicable. There are so many different patents which have created such diversity of interest, that, to harmonize on any one would be impossible. Not only this, but there may still be in reserve something better than any hive now in use, and no one who has invested largely for an extensive apiary, in any of the hives now in use, would throw away those hives and invest a like amount in a standard hive if adopted, merely because it was adopted as a standard.

PROFITS OF BEES THE PRESENT SEASON.

In this latitude the 1st of August terminates the honey harvest, and really not much stored in July; the result has been but little honey and not much increase in stock, profits light. I find a great difference in the collection of honey in different neighbourhoods and at only a distance of two to five miles apart one will collect large stores and cast many swarms, while the other would do neither.

KEEPING BEES IN A HOUSE IN SUMMER.

I found this impracticable either in summer or winter. If kept in an upper story they would more frequently lose their queens from flight—not being able to return. Is it a mistake to suppose that the queen never leaves the hive except on bridal occasions? I learn that you have tried keeping a large stock in the house this summer;

what is your experience with them ? At what time does the queen fly ?

BEE FORAGE.

The forest is the best bee forage we have ; and the reason why bees do not store as much honey now as in the early settlement of the country, is the clearing out of the forest has destroyed their pasturage.

LUCK WITH BEES.

Why does neighbor B. succeed in raising fine hogs, cattle, sheep and other stock ? From the same cause that he succeeds with his bees ; he gives them the necessary attention, feeds them when necessary, and sees that all are properly attended to and cared for at the proper time ; and thus he is lucky with bees.

FRAME HIVES AND BEES MOTH.

While I prefer the frame hive, I confess they require more attention, and bees more assistance to keep out the moth than the box hive ; and any one who uses the frame hive and gives them no more attention and care than was usually given them in the box hive, will find he will lose more bees from the moth in the former than in the latter ; at least he will find more moths in them, there are so many vacant places for them to secrete themselves from which the bees cannot extricate them. Though bees properly attended to are never lost from ravages of the moth, some other cause, prey upon the bees first, and reduce them too low to protect their combs from the miller.

SAVING COMB.

I find it better to put a box containing comb on a strong hive so as to let the bees have access to it, and they will protect it from the moth. That I have been able to do, better than any other way I could devise. I have

this season kept several boxes of comb in this way, and when I wanted to use the comb I removed it without any inconvenience, to a different hive, clean, and all ready for storing honey.

(ANSWER.)

It is a surer and much easier plan to use eggs, and would be safer for the inexperienced. A large apiary could be Italianized in this way, and it should be done quite early. By stimulating a few swarms, Italian drones could be reared far in advance of the blacks ; hence you could secure pure fertilization.

If there was honey in the cage where the dead bees were found, no doubt the workers had killed the bees, as well as the queen ; which they often do if the wire cage is poorly made.

As to the queen leaving the hive only on her bridal trips, we think she only leaves then and when the first swarm comes forth. We have watched them often and never saw one leave for any other purpose.

As to placing bees in a house, we have kept nearly thirty swarms in a three story building the present season, two swarms at a window. Being so high, there was too much air passing through ; and, too, when the queens returned from their bridal trip they were liable to drop at the wrong hive and were destroyed.

As to the frame hive being more easily entered by the moth, we will have to disagree with friend G. Moths seldom destroy a strong swarm. We never lost one in either hive, hence could not say which is the worst.

Bees appear to be decidedly backward in surgery and the medical art, and probably kill their sick and maimed, when the cases are difficult ; but then they take care to have few such cases. They are your true sanitary laborers.—Wood.

Georgia and Alabama Bee Keepers Convention.

OXFORD, Ala., Aug. 9, 1874.

The annual meeting of the Georgia and Alabama Bee Keepers Association met in Good Templars Hall at one o'clock P. M.

The President and Secretary being absent, Rev. J. McLane of Oxford was called to the chair, and J. M. Thornton of Talladega was chosen Secretary.

A letter of excuse for non-attendance was received from Thos. J. Perry, Secretary, and read before the Society. A list of topics was then presented for discussion, as follows:

What is the best method of swarming bees artificially?

A. F. Moon being called for, gave his method as follows: As soon as his bees show signs of swarming he takes an empty hive, with frames the same size as those having bees in them. He commences at No. 1, a strong colony. He takes from the center a frame of brood; if very strong with bees and brood he takes two, leaving the queen in the old hive, and placing empty frames where the brood and bees were. He passes to hive No. 2, and draws from that, one or two frames, as they can spare, leaving the queen in the old hive, replacing the frames of brood and bees with empty frames as before. And so on until he fills his empty hives from the others. No two frames should be drawn from hives standing beside each other. Where two frames are taken from an old swarm, a frame of brood should be placed between them. By the third or fourth day, if it is a good honey season, the hive will be filled with comb and eggs. He keeps queens on hand to supply the newly made

swarms. He places the young swarm on a new stand, gives them a queen and is soon able to draw from them the same as from the old swarms.

Prof. Borden of Oxford gave his method.—He takes all the frames out of the old hive but one, leaving the queen on that. Places all the frames of brood in the new hive with the bees adhering to them. This he places upon a new stand. The old bees return to the parent hive which serves to keep up the old swarm. Rev. S. G. Jenkins, Rev. McLane, T. Isbell, J. M. Thornton, Dr. C. H. Garman, W. L. Terry, and others participated in the discussion.

2d. Can swarming be controlled?

This question was freely discussed by nearly all its members, and the result was the pretty unanimous opinion that, first, it was natural for bees to swarm, yet, to a certain extent they could be controlled, but not entirely.

3d. The best method of handling bees to avoid exciting their anger.

This, being a very important matter, enlisted the interest of all present, and was discussed freely, nearly all agreeing that kindness, firmness, and above all, a little experience was necessary to ensure complete success. Rag smoke should be used, at the discretion of the operator.

4th. The best method of procuring box honey.

This question, being one that many people were deeply interested in, from the fact that bees often refuse to work in boxes, the whys and wherefores were much sought after. The conclusion arrived at was first, bring the bees in close proximity to the boxes. Better not use any honey board, that the bees can have the control and uniform heat of the hive. If bee-keepers

are compelled to use the log or box hive they should make the entrance large, and communication easy from the hive to the boxes, which should be placed on as soon as the bees begin to increase, and they will generally succeed. If racks are to be used in the boxes the extractor is found useful, and was recommended.

5th. What are the best honey producing plants?

As this was one of the most important subjects before the convention it received considerable attention. Prof. Borden was called for and responded with quite a long list of plants, not differing from those chosen by the others. They were as follows: White clover, poplar, linden (or basswood,) willow, elder, elm, maple, currant, gooseberry, strawberry, peach, whortleberry, cherry, pear, apple, black gum, china tree, raspberry, blackberry, mignonette, buckwheat, catnip, sweet clover, turnip, and other plants, recommending those especially that are adapted to stock, believing that the apriarian's interest could be greatly increased, as well as the wealth of the country.

The Secretary announced that the time for the election of officers had arrived. The officers were elected by acclamation, instead of ballot. The following is the result.

President, A. F. Moon, Rome, Ga.;

Vice Presidents, Maj. W. M. L. Terry, Talladega, Ala.; Rev. S. G. Jenkins, Silver Run, Ala.; Dr. J. P. H. Brown, Augusta, Ga.; Dr. Wm. White, Atlanta, Ga.

Secretary, Thos. J. Perry, Rome, Ga. Treasurer, C. O. Stillwell, Rome, Ga.

Executive Committee, J. M. Thornton, R. R. Asbury, T. L. Isbell, B. P. Autry, and Dr. C. H. Garman, all of Talladega, Ala.

The convention then resumed the discussion of topics.

6th. The best shape for a standard hive.

Prof. Borden gave his preference to a square frame. His experience had led him to believe this the best, all things considered. A. F. Moon advocated a frame a little different; a frame eleven inches high would give ten inches depth in comb, and sixteen long would give about fifteen for comb. With eight frames this would make a good sized, well proportioned hive, with a fine capacity for box or frame honey, or for the extractor if required. He had found that frames of this dimension was much easier handled than those deeper. Also found that bees would work in boxes sooner than in deeper frames, and thought the time not far distant when about this size and shape would be adopted, especially in the South, where the winters are not so destructive to bees as in the North. The opinions and experiences of the members differed somewhat on this point. Items of less importance was then discussed.

A motion was then put before the Convention to hold the next meeting at Talladega, Ala., the last Wednesday in March. The motion prevailed and was carried by an almost unanimous vote.

A vote of thanks was then tendered to the railroad companies for their kindness in granting half fare on their roads.

The convention then adjourned to meet in Talladega the first Wednesday in March 1875.

J. M. THORNTON, Sec'y.

(It was expected that the next meeting would be held in the State of Ga., but the attendance from Ga. was not

as large as was expected, while that from Ala. was large. Alabama claimed the preference, and the vote was almost, if not unanimous, for Talladega, Ala., as the place for the next convention. Some of the live bee-keepers of the South live here, and we will warrant a cordial reception to all that may attend. We hope to see a general gathering. Apiculture is moving grandly along, and will soon take rank with other branches of industry in the South. While the convention was not as well attended as we had hoped, yet the meeting was an interesting one, and, we doubt not, much good will be derived from it. All passed off pleasantly, every one seemed to be pleased, and, all in all, it was a grand success. All honor to this, Alabama's first convention?

A Question, and its Answer.

(The following query, to our correspondent, A. J. Murray, Esq., fully explains the condition of affairs in the extreme South. Mr. Murray has kindly answered it through the BEE WORLD.)

NEW ORLEANS, July 16, 1874.
A. J. Murray,

Sir:

On page 230—
BEE WORLD—you say: “I’ve before me a letter from Louisiana, where a bee-keeper has taken two barrels of extracted honey from fifteen colonies.” I have fifteen good colonies, yet I have not taken two quarts; but, on the contrary, have had to feed my bees on sugar syrup from the middle of April to the 10th of June; and if the hells continue to control the weather, will have to feed again.

An almost continuous rain from

early in March to April 24th; then to June 11th—forty days—without rain; and since then hard rains every few days, and for three or four days in succession. This has rendered it impossible for bees to gather food. Even the tallow tree yielded nothing. I am a new beginner, and have commenced in the worst season I have ever experienced in this climate; and, as by the papers, it has been the same all over the State, I would like to know the process by which one got the “two barrels of extracted honey;” if sugar was the basis, how much it cost, &c., &c. As my bees, even the Italians, killed off their drones, I have been able to save only about one out of five queens hatched; some being beaten down by the sudden storms when out.

Any information will be thankfully received by

Yours &c.,

JAS. H. YOUNG,

235 Gasquet St.

(ANSWER.)

The weather, as you complain of, has been general all over the country, and you are fortunate in not losing all of your bees. I judge that you are not an experienced hand in bee-keeping, for if you were you would know how to get a large quantity of honey. Feed your bees in the spring, EARLY, so as to get them strong—almost strong enough to swarm—before, or about the time spring blossoms and flowers are in bloom. There will be enough bees to gather all the honey; and when they are busy use an extractor. Examine them often, and if you do not wish swarms, cut out all drone and queen cells, and with the combs emptied they will work the harder to make up the loss. In case

of wet weather, leave them enough to live on and feed the larvae, so that the brood will not starve. You may have fed them too much, and they have got lazy or unwilling to leave the hive, when an opportunity was offered.

A. J. MURRAY.

Review.

BY JEWELL DAVIS.

My friend Dadant goes in for a standard comb frame of $16\frac{1}{2}$ inches in length by 12 inches in depth, outside measurement. The standard frame I use is 17 inches long, by 12 inches deep, or wide, outside measurement. Hence we differ but little in size. Let others, who choose a longer or shorter frame, tell us why they think them preferable. If a standard frame is adopted, it is manifest much labor will be saved in transferring combs from one sized comb frame to another when we purchase bees of other parties, if the frames are all alike in size. Then, again the extractors of all patterns will be made to take in the same sized frame. Look over friend Dadant's reasons for the standard frame.

Read also, friend Quinby's reasonings on the clipping of the queen's wings, and compare them with those of others. It may be for your benefit. Friend Rush of Pa., now says his experience in bee-keeping is worth more than it cost him. It is a fine thing he did not come out in debt. He says he lost by transferring, but does not inform us why. Then lost six swarms by raising queens, yet does not tell us why. And lost ten by artificial swarming. This shows there is some danger in this practice unless properly done, and under right circumstances. Then comes the loss of eighteen colo-

nies by robbing, and six by dysentery. Well, about the question of robbing: we know it may be induced by the weakness of the colonies, and queenlessness during a scarcity of honey flowers, or it may be induced by the exposure of honey or other sweets, in the apiary, and the want of proper protection to each colony in the apiary. We are not informed as to the cause, hence may not give the specific remedy. The honey question is next in Mr. Rush's mind. He says: "I can get but little honey in boxes; but can get ten times as much in frames." Well, why is this? He does not venture to say, but I may suggest that there may be two reasons for it, and perhaps the most important one is, that there was not enough bees in the hives at the commencement of the honey harvest, to fill both the brood chamber and the surplus boxes, in sufficient numbers to generate the heat required to build comb in the boxes, partially divided from the brood chamber, or, secondly, the entrance to the boxes was too small. I find the frame is largely to be preferred for a greater yield of honey. Read his remarks on dysentery, which I leave for a future consideration, when a more convenient season may arise. The patent hive snare caught him, too, as well as the queen breeders, calling from him both condemnation and praises. Why cannot friend Rush locate in Arkansas, as well as either of the locations named?

My friend Connoisseur chooses to write over a signature that is neither pleasant for me to remember how to spell it, or how to write it, without first looking at it. Won't he change it for my convenience. He calls our attention to prolific and unprolific

queens, and informs us that we should never allow the bees to supersede their queen, and gives, as the reason, that the bees "are too slow about it," for our fast bee-keeping age. And I must coincide, to a considerable extent, with that advice. I leave him and Mr. Hereford to settle their own differences. Well, friend, do not be so rough with your bees. Who would not become a little riled by such unceremonious brushes? Tame their Mustang disposition with a little smoke before you begin, even if you have to buy one of Quinby's Bee Smokers for the purpose.

I now notice Davis' remarks about hives, and find but little to complain of, in the main, except that the printer has made him talk a little differently than was intended. He intended to say, "I prefer a loose bottom board, if I cannot have a removable side, to the brood chamber." But the printer made him say, "besides the board chamber;" and again, twice the printer makes the doctor say, "broad chamber," when he intended to say "brood chamber," or "brood frame."

Friend Young criticizes the former appearances of the BEE WORLD, as compared with its present status. Perhaps I ought not to blame him, for it needed a little improvement near that time. Now, he finds another matter to criticize it about; and, peradventure, it might be reformed here also. What have you to say about it, friend Moon? I admire Mr. Young's release from the close fitting top bars of his comb frames, which was such a nuisance to him, and bee-keepers in general.

Our friend Nesbit informs us how to prevent bees from swarming. It is done by that remarkable invention, the honey extractor; and not the patent

non-swarmer. The extractor is used every three to five days, effectually preventing swarming. Friend Kellogg prevents swarming by removing the queen cells once a week; but I have seen them swarm almost before starting queen cells; and especially before sealing any. Hence, it may not do always, to rely upon their removal once a week to prevent swarming. I would advise all to read friend Knight's article on strong and weak colonies. It is a good article.—Its teachings should be carefully noted.

Will friend Stone hasten the day when he will give us his further remarks about buckwheat as a honey plant, &c.?

Hold on, friend Kellogg, or your hat will be gone, if you swing it so lustily! Don't be so excited over your new top bars, nor frighten us so about using Novice's cotton quilts, in this age of alarming fires. Don't shout so about that small bit of rotten wood, or all the world will think you wild. Be calm. Yes, stop and convince them that the honey is pure, by showing them how to take it out of the combs.

My friend Argo speaks rather discouragingly of bee culture in Kentucky in consequence of the drouth. He thinks Dr. Davis does not understand him about introducing virgin queens; but I would rather think he does, and that friend Argo does not understand Dr. Davis.

Mr. Argo says, "The nursery is all in one hive, so they all hatch in one hive." This far Mr. Argo understands all right; but what next does Dr. Davis direct to do. He never directed friend Argo to introduce the virgin queen into a hive of strange bees, among which she was not hatched. Well, what did Dr. Davis say? He

said take the cages containing virgin queens, and put one in each of the combs on either side of the nursery in the hive where they were hatched; and after so arranged, lift out a comb with all the adhering bees, and place it between two combs of mature brood in a new hive—the bees having been brushed off of these combs of brood, back into their own hives. Now, here you have the virgin queen in the cage along with the bees, on the comb, and none but the bees with which she was hatched. Among them she is set at liberty, as Dr. Davis directed. After fertilized, you build up the colony, so made, by adding more combs of mature brood from other hives, always brushing off the bees into their own hives, from whence you took the combs of brood. After this manner proceed with all the other combs in the nursery hive containing a caged virgin queen. Never put them among strange bees, among which they were not hatched.

It is a singular thing to me that my friend, McLean, should choose to bind such a burden upon Dr. Davis as to review each number of the BEE WORLD. It is no little matter to condense the review of a whole number into a short article for its columns and make it readable, let who will try it.

Mr. McLean will accept my thanks for the position he has assigned me.

Charleston, Ill., Aug. 1874.

Scraps from Illinois.

BY W. M. KELLOGG.

THOSE MAD ITALIANS.

“Connoisseur” wants help in regard to those “ever-sticking, anti-brushing, mad-after-a-brushing Italians.” We guess the evil is in himself, rather

than the bees, for he says “the combs are all nicely filled, and the bees are very quiet, dont have to use any smoke.”

Why friend C, do you mean to say you always go at them without smoke?

If you do, there's the pickle. We have as quiet bees as any, but don't pretend to go to work handling the frames, much less shaking off the bees, without using that cure-all, rotten wood smoke. To be sure we can, and have done it without the smoke, but like the boy speaking a piece, we don't like to. I have transferred nineteen stocks this season from various kinds of hives, blacks, hybrids and Italians, and have extracted from a goodly number, and have used a bee net but a few times. I always get the bees well subdued with smoke before I begin work; and have had very little trouble shaking or brushing bees off the combs. Of course I can't always go “scot free,” but get stung sometimes, when smoke and old Nick himself could not subdue them.

In extracting from a large stock this season, I used a black wing to brush off bees with; bees got very cross; would sting that wing by dozens, which made our nerves a little “creepy,” and said wing was sent on its travels in a hurry, and a bunch of weeds used instead. No cross bees after that, and all was “serene.” There, Connoisseur, does that let any light shine on your dark cloud?

WATER TO STOP ROBBING.

Who has ever tried water to dampen the ardor of robbing bees? I have tried it for one, and find it works first-rate. I came home about 7 o'clock one evening and found robbers pitching into a new stock by the thousands—the air was full of them. Smoke had no effect, so I filled the garden sprink-

ler, jumped up on an adjoining hive, and gave them a shower bath; and by the time I had emptied the sprinkler the second time the robbers were "non est." So much so, that the stock took care of what few were left to try it again. Have used it several times since with success.

BUCKWHEAT.

Friend Stone, we shall be glad to see your article on Buckwheat as a Honey Plant, &c.

A friend induced one of our farmers to sow nine acres of buckwheat after his wheat was harvested; several of us throwing in and paying for the seed, according to the number of stocks each one had. Others say it won't pay; can't get it out of the land. But we are in hopes of getting more into it another year. The nine acres are in bloom now, but there is not much honey in it, on account of the long spell of dry weather we are having.

A REVIEWER.

I second friend McLean's idea of appointing Dr. Davis to review the articles in each number of the WORLD, so that we that scratch down our little items can know just where we fail in them, for I would like to add the office of critic, also. Let's hear the ayes and nays on it.

A PIG HEADED SWARM.

I made a new stock, and not having an Italian queen to give them, put in a black one. As soon as I could I gave them an Italian queen cell about ready to hatch, cutting out all those they had started. The cell was received all right, and fixed up nice. I opened the hive soon after she had hatched, and found the queen in a ball of angry bees. I put her in a cage and sprayed both queen and bees with the atomizer, and soon released her, when she

was received all right. I had to cut out a lot of queen cells at the same time. Four days later, found her gone and capped queen cells again. I then gave them a caged, laying queen; and released her after being in the cage three days. By this time there was no chance for them to build any more queen cells, and, of course, I thought they were all right, for I saw new queen in the hive. But later, could find no queen or eggs, and gave them a frame of brood, when they at once began queen cells again, raised a queen and she has begun to lay all right. From July 9, to Aug. 15, without an egg laid in the hive! Query. Why did the little scamps kill the queen hatched in their own hive, and the one introduced, after each had been in the live several days?

When I began writing this, we were being dried up with heat; but now we have had a glorious day's rain; and now look out for honey slung all over the yard! For everything is lovely with buckwheat, heartsease and golden rod in bloom.

Oneida, Knox Co., Ill., Aug. 1874.

Queen Bees.

Means for raising queens are to be found in hives throughout the greater part of the year, and this is a wise and most benificent provision against accident or sudden death to the important personage on whose life the welfare of the bee community depends, for as soon as the absence of the common mother is discovered, proceedings are at once instituted for supplying her place. By common consent, certain larvæ are fixed upon for royal honors, and around them are built large cradles with thick walls of wax. But these cradles do not take a horizontal position, like common bee cells—they project from the combs, and hang perpendicularly, with their mouths downward.

When made on the face of the combs, all other cells around them are destroyed; but where natural swarming is allowed, they are generally suspended like stalactites from the edges.

Now this mode of rearing royalty—so different from the method employed in raising workers—has caused considerable speculation, and the question has been asked—why are queens placed in suspended cells, and made, as it were, to stand on their heads? and for what purpose are their cells loaded with far more jelly than they can consume? I have not the least idea why, wrote a Haddington bee master a few weeks ago.

We think a reason can be given. In the first place, there is not room for large horizontal cells between the combs; and in the second place, if a cell for the purpose of isolation requires to be lengthened and bent into a new position, the bees find it more easy because more natural for them, to build it downward. The position of the cell, though turned upside down, does not effect in the very least the progress or perfection of the embryo.

We believe the late Dr. Leitch, of Monomail, was the first to intimate to the public the fact of heat playing an important, if not the prime part in the evolution of queens. It is really the case that princesses require a much higher temperature for their development than common bees.

And what is rather curious, bees can command this higher temperature whenever they please; they can elevate the degree of heat in any part of their hive, and localize or confine the heat to that particular place. Thus if a piece of comb requires mending, the temperature must be raised before they can manipulate it, but they can raise a circle of heat around the breakage, and keep the heat there within a limited sphere.

They can do the same thing to a queen cell. Having isolated it from other cells, they enclose it in a halo of caloric, two or three inches in diameter and the heat within the halo is much greater than in any other part of the

hive. In a unicomb hive, a distinct warm spot on the glass opposite a queen's cell can be felt by the hand.

The thick waxen walls of the cradle are designed to aid the bees in maintaining an equable temperature around its inmate, and prevent danger from rapid or easy chilling.

The superfluous jelly filling the bottom of the cells is put in for the purpose of bringing the larvae forward to a position where it can be properly attended to; and its softness serves to keep the tender nursling from injury.—*Eng. Ag. Gazette.*

Eucalyptus Globulus.

In the *COMPTES RENDUS* for October the 6th, M. Gimbert narrates the success of his experiments in improving the miasmatic climate of some parts of Algeria by plantations of *Eucalyptus globulus*. The tree grows very rapidly and possesses the power of destroying the malarious agency which is supposed to cause fever. It absorbs as much as ten times its weight of water from the soil, and emits camphorous antiseptic vapor from its leaves. The same tree has been tried with success at the Cape of Good Hope. A farm some 20 miles from Algiers was noted for its pestilential air; in the Spring of 1867, 13,000 *Eucalyptus* were planted there, since which not a single case of fever has occurred. Numerous other like cases are cited. We presume these statements are substantially correct, although there may be some errors of detail or interpretation of facts.

Even from an ornamental point of view this tree is well worthy of cultivation. The trunk, of which the outer layers of bark detach themselves, as in the Oriental Plane, is smooth and ash-colored, the leaves are bluish-green, or, when young, often glaucous-white; often from a half a foot to a foot in length; and the flowers are large and axillary, growing close to the stem either singly or in clusters of two or three. The tree sometimes attains the height of 200 feet, but often flowers when not above 10 feet high.

Besides its very great value as a tim-

ber tree, this species of Eucalyptus, in common with many others, is of importance as a honey-producing tree. The flowers yield a large quantity of honey, and are greatly affected by bees, at least, such is the case in Australia, where the honey bees of Europe introduced there spread in a few years in a remarkable manner and soon established itself in the forests, in which the Eucalypti form nearly 99 per cent. of the vegetation. The leaves, probably from their coriaceous and resinous nature are singularly proof against the ravages of the locust. This was noticed by M. Ramel in 1865, in a part of Senegal, where *Eucalyptus globulus* had been introduced, when the leaves of all other trees had been devoured by the locust, those of the *Eucalyptus globulus* resisted their attacks.

(REMARKS.)

We clip the above from a circular issued by Sontag & Co., San Francisco, Cal. We think it would be a profitable tree for bee-keepers, as well as others to raise. Write to them for a circular.

The queen possesses no authority over the hive, others than that influence which is derived from the fact that she is the mother of all the bees; and their instinct teaches them that they are wholly dependant on her to propagate their species, and treat her with the greatest kindness, tenderness and reverence, and manifest at all times the most sincere attachment for her.—WEEKS.

In morn these busy lab'rors cut the sky,
Thro' all the gardens and the meadows fly;
And free from envy, by their labors strive,
Which shall do most to enrich the common hive.
Such is the employment of their happy days,
And such their title to immortal praise.

—*Dinsdale's Poem on Bees.*

All the necessary arrangements for wintering bees should be made before the first of October. Do not neglect it, for their safety depends upon it.

Pro and Con.

BY J. M. MARVIN.

It is sometimes asserted that honey dealers use adulterations and fraud in in their dealings with bee-keepers and the public, to the special detriment of bee-keepers; the most prominent dealers being assailed the most. No trio of bee-keepers have done more for bee-keepers, or consumers, than one of the leading firms that has created the best, if not the only, real honey market in this State. I have sold honey by the tons for many years; and have seen by correspondence, the bee journals, and by practical sight, of large shipments of honey, even by the car loads, (see the car loads from the Golden State, last year,) and saw eighty tons in one dealer's house, at one time, before the Chicago fire; and that before the main crop was lifted (my crop was sent in first after the fire, being the nearest, to fill the deficit for the time). What is the object, if any, of adulteration, when the bee-keepers, through their carelessness, or their ignorance, handle their honey, and sell the same, in bad order, or at a price so low as to defy adulterations! If a dealer has become expert in the knowledge of handling, giving the same article in a better and more attractive, saleable shape, and making thereby more money than the careless, or ignorant producer, whose fault is it? Give us no more insinuations, based on faith, or belief. Practical knowledge, demonstrated with all connecting links bearing on the case, pro and con, is what is wanted, to see if there be a fault.

St. Charles, Ill.

Bees work for man, and yet they never bruise Their master's flower, but leave it, having done As fair as ever and as fit for use.

—*Herbert.*

One Dollar Queens.

BY H. NESBIT.

Friend Moon:—You asked me some time ago to give you an article on dollar, or cheap queens. Well, after thinking the matter all over, I can't see that the cheap queen trade will result in any disadvantage to the bee business, but am of the opinion it will be of an advantage, provided none are sent out but those raised from pure mothers.

I know, from long experience, that pure queens cannot be raised and sold, over the country generally, for one dollar each—nor even five dollars—for the reason that there is too many hybrid and black drones, all over the country.

I consider any good, prolific queen, is worth one dollar, at least, and I have seen times that I would have been glad to have had even a good black queen at two dollars.

There are many persons who have not time to raise their own queens, even if they understood the business, who can better afford to pay one dollar each for queens to put in their hives at swarming time, or when they have a missing queen, than to bother with raising a few at home.

I think reducing the price will be the means of stocking the country with good hybrids, if nothing more, which are superior to the blacks, or native bees, notwithstanding Connoisseur's ever-sticking, anti-brushing, mad-after-a-brushing Italians, and there will be one chance in ten—twenty, or fifty—to get a pure queen.

It is true that some will purchase dollar queens, thinking that any bee that has a yellow stripe on its back is a pure Italian, just as some people

think that anything that barks is a dog, and will answer every purpose for a dog.

I would advise all persons purchasing queens, either high or low priced ones, to be careful who they purchase of, for this reason: Bees are affected with foul brood, which I am told is a very dangerous and troublesome disease, and is contagious; and there is some—I hope not many—who are advertising queens for sale, bred from "pure and imported mothers," who has never seen a pure Italian bee.

To prove this I will give one instance and I know of many other similar ones.

One party—I will call no names—advertising queens at one dollar—LARGELY. Oh, yes; was going to raise queens enough in one season to marry on, and retire from the business.

I wrote the following questions: How many pure Italian bees have you? How many hybrids? How many black colonies within two miles of you? How long have you been raising Italian queens? The answer was: I purchased what I SUPPOSED to be a pure queen last season, and Italianized the most of my bees. My apiary is large; but this spring there don't seem to be any PURE ONES and I will have to purchase ANOTHER queen and raise a new stock before I can send out any. Oh, we have a splendid bee country here! There is HUNDREDS of black bees all around me, and the woods are FULL of wild bees.

Now, how many chances would a purchaser have of getting even a good hybrid from such a breeder? One poor little queen to rear drones enough to contend against all the drones raised in a large apiary of black bees, and the HUNDREDS all around, to say nothing about the woods FULL.

I cannot get more than one out of twenty purely fertilized, and I permit none but Italian drones in my own apiary, and I encourage some of my best queens to raise as many drones as possible, and have Italianized about one half of the bees within three miles of me. (The other half are owned by persons who don't believe in having their bees tampered with.—O. F's.)

Now, friend Moon, I fear some will say I am grinding my ax. Such is not the case, for I retired from the queen business two years ago. I raise some of my own queens, and purchase some; and after I get all my hives queened, I generally have a dozen or two left, which I sell at a low price, rather than let them go to loss. I have orders for more than I raised this season. Honey at ten cents pays better than one dollar queens, or ten dollar tested queens.

Cynthiana, Ky.

Varieties.

BY R. M. ARGO.

Friend Moon:—On first page of last BEE WORLD, friend Dadant advocates the adoption of a standard hive. I am in favor of a standard hive, provided we can ever agree on the size of a standard frame. The size of the frame—not the hive—will be the great drawback. I have for years tried various sizes of frames, and finally adopted the Langstroth as the best of all I had tried. But still it does not suit me exactly. In the spring of 1873, I invented a frame $13 \times 10\frac{3}{4}$ inches wide, and have given it a fair trial this season, and am better pleased with the size than the Langstroth. I would not have it deeper, but think I would prefer it one inch wider. When we agree on the size of a standard frame, we can make our hives any size we

wish, provided the depth and length-way of the hive is the proper size to receive the frame. I consider a frame 12 inches deep rather unhandy to use.

Friend Quinby, it was from you that I took the practice of cropping queens wings. Have now quit it altogether, for the following reasons. 1.—Bees, I find, are more apt to remove a cropped queen. 2.—More of their queen progeny are hatched with defective wings, and I think it has a tendency to cause weak winged workers. Frequent removing of dogs tails in succeeding generations will produce a set of dogs with no tails. 3.—I practice artificial swarming, mainly, and when they do swarm naturally the queen has as many chances to get lost in the grass, if her wing is cropped, as there is of losing the swarm by flight to the woods. 4.—I see no advantages over disadvantages in cropping of the queens wings.

Friend W. B. Rush, page 250, goes over the same grounds I have traveled. I could name honest breeders, and scoundrels, too, in most of the states; and would do so, did I not fear I might omit the name of an honest breeder, or two, who would thereby feel injured. So I forbear to call names. But the one he calls "dirty dog," told me in a letter last spring, that if he did not send Mr. T. W. Horton, of this place, ten dollars, with ten per cent. interest from the date Mr. Horton sent it, April 4, 1872, for a patent hive and right which he never received, I might publish him (and I will let his letters speak if he don't fork over soon) all over the United States. The time he set to send the \$10 was after the 1st of May, as soon as he returned from Columbia, Tenn., to Indianapolis, Ind. I have waited patiently but never heard from

him since. I have repeatedly warned Novices to be careful who they send to for queens, and to let all patent hives, rights, &c., alone.

Connoisseur, page 261: Yes, my experience is the same—that natural queens are better than artificial, and for this very reason: I strengthen my best breeding stocks early in spring, in order to induce natural swarming, for cells for the artificial swarms. I am very choice of such cells. My best breed stocks—a few of them—are all that I allow to swarm naturally. Since the good rains, my bees are again swarming on fall pasturage the last two weeks.

Friend J. H. Young I agree with, in his advice to you. The BEE WORLD is making good improvements, and is ahead of all others, and should stand on its own merits.

Next, friend Nesbit, page 265, makes many prominent bee men feel of their ears to see if they are not as long as asse's, for he is exactly right. I do not speak from theory, but from actual experience. Were I running my bees for honey, I would take no other course. My location being a poor one for honey, my aim is mostly queen raising. My youngest son run two hives this season on Nesbit's method, and cleared \$48 in honey alone, to say nothing of two swarms at the end of the honey season. Who can beat that? These two hives were at the country apiary, two miles away. The honey was extracted, and at 25 cts. When I say, who can beat it, I mean under the disadvantages of such a drought as is described on page 271, last number of BEE WORLD.

Friend S. D. McLean, the BEE WORLD is still progressing in its improvements. It now has the names of writ-

ers of articles under the head, just as it should be; for we generally look at the foot for the name of the author, before reading an article; and if no name is found, or a fictitious name, we hardly care to read it. At the foot should be the postoffice address, in full, including the county and State; as there are hundreds who, after reading the article, would like to write to the author.

There are, amongst our bee men, men of considerable learning, well adapted as reviewers. Shall we not have them?

I have never known bees to do much on fall forage here, but think they are now gathering considerable, and the forage is not in its fullest bloom yet. I could divide each stand in my apiary now, if I only had the empty comb to give them, as they all have too many bees, and too much honey, but will not build comb at this time of year. The drones were all killed off during the later part of the drought; but since the rains and new bloom, almost every stand has raised new drones, and now is a fine time to rear queens. Hence the value of empty combs.

Lowell, Garrard County, Ky., 1874.

Variety.

BY HARRY GOODLANDER.

The August No. of BEE WORLD is just at hand, and, as usual, is full of "goodies." First on the roll comes Dadant for a standard frame. Yes, we should have a standard frame, by all means; but not a standard hive, for in some localities bees will need a larger hive than in others. Let the hive be enlarged by adding frames, either at sides or on top (I think sides the best.) I use a frame top bar 21

inches long, sides 12 inches, bottom 19 inches long, 8 such frames in one hive; but it is not enough in this locality, shall next season change all my hives to hold twelve such frames. Should we adopt a standard frame it will be very handy for apiarians to exchange with one another.

Jewell Davis I agree with you. I have no trouble about spiders; they assist me to catch millers and this entire season I have only found one Italian bee entangled in their web; but woe unto the robbers that are inspecting the hives.

James H. Young; you don't like chromos. Having never yet seen one sent with the bee journals, nor ever received a premium with one (except Moon's Autobiography, with the old N. A. B. J.) of either of the four journals that I now take, and some I have taken from their earliest period, I can not speak on that subject. You have adopted a very good hive (i. e. principle). Keep glass out of your hive, and keep yourself and bees out of all patent hives, and you are sure of success.

No, no, friend Nesbit, we can not recommend a good extractor too highly; but away with all revolving can extractors. Give those with stationary can and revolving frames the preference. Yes, never throw away a piece of worker comb.

E. Knight; your article is good, and to the point. Young and old beginners should study and practice the precepts therein contained. He should have added the grand golden precept of apiarians, beware of all patent hives.

G. W. Barclay, I am glad you have put on the apicultural harness again. Success to you.

B. W. Stone; buckwheat is good, but

Sir, let us sow other plants, too; such as borage, golden rod, mustard, mountain bee plant, Alsike clover, &c. Sow along the road side, around stumps, &c. Do not forget catnip, either.

W. M. Kellogg; yes, open top bars every time. Rotten wood is the best I can get. There is a great deal of spurious honey in the market, but let every apiarian label his honey, and have the retailer cancel the label. The comb in the honey should be one way to detect its spuriousness.

Argo; you have done well, under the circumstances. But you are an old hand.

Rucker; get you an extractor. What are you about, breaking combs.

D. W. Fletcher; I frequently find dumb queen cells, but never in a stock containing a good prolific queen. Yes, ventilate the patent hive swindle.

A. H. R. Bryant: Yes sir, you are right. Full postoffice address every time. I wish bee-keepers would adopt a resolution to support no journal that fails to give the address of correspondents. As I did not intend to review the WORLD when I began this article, I will close, by bidding you good night.

Leesburg, Ind.

Standard Frames---Brushing Bees.

BY H. NESBIT.

I agree with Mr. Dadant on standard frames, except the thickness of top bar; he wants it $\frac{3}{4}$ inch thick; I think $\frac{5}{8}$ inch is sufficient. I have used a frame 10x17 inside—ends and top bars $\frac{5}{8}$ inch thick, for fifteen years, and never had any Spring.

But we so near agree, that if he will cut down the ends of his top bar $\frac{3}{8}$

where it rests on the rabbit, and all outside dimensions equal, it will make no difference.

BRUSHING BEES.

In the first place is Mr. Connoisseur sure he has pure Italians? I doubt it. But his hybrids will admit of brushing if he will administer a little smoke. Get a small piece of rotten wood on fire, and if it is smoking free, just hold the frame over it so all the bees will get a little—just enough to start them on the run—then give them a quick shake over the hive, and brush with a turkey quill. Remove all the combs before beginning to shake, so as not to shake or brush the same bees more than once. While running they are more easily shaken off. A good way is to lift the hive off the stand and set another on its place, and brush into it. This saves time. I work thus, even with hybrids, all day long without a single sting.

Cynthiana, Ky

Sketches from Tennessee.

BY S. D. MC LEAN.

Mr. Editor:—In your editorial, opening the columns of the BEE WORLD for the discussion of the subject of cheap queens, you touch a chord which vibrates in unison with the sentiments of many bee keepers.

The Italian bee has, to a great extent, been brought into disrepute by careless breeding and the sale of impure queens. Queen breeders have sent their cheap, impure queens all over the country to purchasers, many of whom, being incapable of judging of the purity of the Italian bee, have attempted to Italianize their stock with them. The result being a failure. The Italian bee is pronounced a humbug, and the breeder a swindler.

Moreover, there is involved in the sale of untested or unwarranted queens a point which every purchaser ought to look into before purchasing. If avarice, with the breeder, predominates over honesty, he has placed himself in a condition to swindle you every pop; for in testing his queens he can send you his impure ones as untested, and you have no means of detecting his rascality.

Place untested or unwarranted queens alongside with the Dzierzon theory of fertilization, and you have the bane to successful breeding in purity of the Italian bee.

Let it be understood that I write against no queen breeder, but against the principle of selling untested or unwarranted queens.

AMUSING.

It was somewhat amusing to find friend Kellogg so happy over the use of rotten wood, as to halloo "Glory!" But his exultation is pardonable, as he informs us it was to escape from the wrath to come.

Also to find a statement made by friend Rush on page 260, in reference to his hive; that is, If any honest bee-keeper wants one, &c. The inference is that all honest bee-keepers will buy one, and those that are not honest will not buy; but as all will claim honesty, all will buy a hive. From his, in connection with the complaints and warnings that come from other Northern correspondents, I see they are cursed with hordes of swindlers. But as the Southern people have always been honest and confiding, we trust that such warning will keep them on the lookout so that they may not be ensnared by those Northern scoundrels when they come among us. The same correspondent wishes to locate either in

Florida or Colorado. He certainly is an extremist. Has our friend from Hernando, Miss., to get out of the drone dilemma, Prometheus like, changed from Baker to Rucker?

Culleoka, Tenn.

Spring and Summer.

BY J. M. MARVIN.

The condition of stocks in my apiary in the spring of '74 was this: 70 stocks in one apiary, were wintered in a cellar. Many bees died, and the combs molded with the dead bees and damp. There were hardly enough bees left alive, for a dozen good stocks. The other apiary of 70 stocks, same in bees, combs in good condition, were wintered in a room with fire heat. The honey was all eaten, and I fed some in June. There was an average of one full comb of brood to the hive, June 1st. Hives were one inch deeper, and one inch shorter than the standard Langstroth frame. The empty combs were used for the 60 new swarms, and 40 old stocks, used during the yield, as doubled. The 100 stocks were boxed and extracted from at the same time, whether they had one comb of brood or more; as they suffer as bad as a stock with every cell full during a yield. Average from the old stocks in surplus, not counting the new swarms, or box honey not all taken off yet, not less than 77 lbs., or five tons. We have had 650 stocks in one location, and then was not overstocked during a yield. We often see one or more stocks doing extra, and others doing little or nothing in the same location. It is seldom, and I may say never, the cause of location; and seldom the hive, but the keeper does not manage right. We are not interested

in a patent hive, and of course it is not to be supposed we will, or can give the knowledge or way, to get an equal amount from every hive, and as large an average, whether 2, or 200 stocks are kept in one location, or in a standard hive of 2,000 inches; or one of the patent hives of six times the capacity. But we do do it, and that without a patent hive, or constant writing on the one subject, to the exclusion of real knowledge that could be given on that and other subjects. Let us have no more HAZING on the one subject, with no progress.

St. Charles Ill.

Advice to Mr. Rush.

If Mr. Rush wants a complete manual of information concerning the climate, soil, products and resources of Florida, there is a pamphlet of 160 pages published by Dennis Eagan, Commissioner of lands and emigration, Tallahassee, which will be sent by him on application. There are, however, many localities in Tennessee where with intelligent management a handsome income might be obtained with 100 colonies. It could not be made profitable tinkering and loosing by artificial swarming, transferring, raising queens, dividing, starving, and freezing. He must be up to the business.

*
Aug. 27th, 1874.

Suit for Damage.

We are credibly informed that the inventor of the Queen bee hive, Mr. Thos. Atkinson has been sued for damage claimed to be incurred by parties to whom he had sold territory of said hive, afterwards inventing another, which he was selling in opposition to his former hive. This will be a nice point to decide.—ED.



Ladies Department.

Notes from Mississippi.

BY ANNA SAUNDERS.

Mr. Editor:—My last letter was not worth much, though some of the veterans think, perhaps, that might be said of all letters from beginners. I think my bees have done well, considering the protracted rains, early, and terrible drouth later in the season. It has been intensely hot, as well as dry, for a long time. Until three days ago, the mercury was over 100 deg. Fah. every day for more than two weeks. Up to June 25th I extracted 25 lbs per hive. Since that time, circumstances had been such that, until last evening, I have scarcely opened a full-sized hive. To my joy, I find now they are full of honey and brood. This time last year, they were at the point of starvation. Seven swarms actually deserted their hives, the third week in August, while I was from home a few days. Perhaps I had better not extract until I begin to see the golden rod in bloom.

Recently, on opening a hive which was raising queens, I found a beautiful one, just hatched, crawling alone on top of the quilt. Wishing another cell to hatch, I caged her and returned her to the hive. On next opening it,

I found her dead, though the naughty bees had plenty of honey, and had been fed almost every day since the old queen was removed. Last year I had no trouble whatever in raising queens, and very little in introducing them.

My bees have twice this year behaved very strangely. Having a hive open, suddenly a peculiar note would be raised, and instantly the whole family would vacate the hive, and take up their quarters on the outside of the hive; each one trying to get out before his fellow. In one instance I don't think a dozen bees were left inside. I succeeded in getting them back by continuing to sprinkle them slightly with cold water, using a hearth broom to apply it. I had never heard or read of such conduct, and was much surprised, and for a while at a loss what to do.

In the beginning of July my apiary was visited by hosts of butterflies. I counted twenty-five on a hive at one time. They made incessant efforts to enter the hives, but I never saw one succeed. They did not stay much over a week.

An exquisite perfume pervades most of the hives I have opened for about three months. I noticed it first in Feb., and since then very often. The disagreeable odor of which I complained last fall has returned a few times. I now think that both of these odors proceed from the bees themselves. At first I thought they came from the pollen.

Woodville, Mi. s.

Our patrons can do us a great deal of good by showing the present number to their friends, and asking them to subscribe.

EDITOR'S TABLE.



Patent Hives.

That the advice of some bee-keepers to "beware of patent hives," should be given with some qualifications, or modifications, is, without doubt, true. There are a great many who are keeping bees in the old log gum, or box hive, who does not realize a single dollar of profit. Who are totally ignorant of any of the precepts of bee-keeping. Who perhaps, keep them because it is unlucky to sell them, (in their estimations;) and so, instead being a pleasing sight to the passer by, and an honor the cause of bee-keeping, are a disgrace.

The only way we can see out of the difficulty is for such a person to procure a movable comb hive, (which must of a necessity be a patent) and begin on a system commensurate with his means, or tastes. In our estimation it is not the patent hives that has made this bad odor among bee-keepers, but the man who sells them. Read Argo's letter to the WORLD, present number, for a description of such a person. It is a wrong policy to advise bee-keepers to let patent hives alone, without giving the reasons; for when the reasons are given they often throw the blame on the vender rather than the hive.

Humbugs.

We presume there is no species of bug that takes as many forms and shapes, or leaves a victim in a more unenviable state of mind than a humbug. Especially is this true when it is a big one. So universally and generally has it been introduced that any person, probably, can tell you that he has felt its bite. But, according to our correspondents, he visits bee-keepers especially. Almost every mail brings us an account of some one who has been victim to some humbug. Our columns have always been open to the ventilation of such, but still they increase. What is to be done, is the question. Well, we know of no other way to do, than to keep on ventilating; and keep ourselves posted through the bee journals. We can not thoroughly suppress this species of swindling for new victims are always to be found. They are generally those who do not take a paper, hence their ignorance. A good many would say, doubtless, that they ought to be swindled. Then we have a class who take papers enough, but they think their judgement good enough to disregard any friendly advice given, and get bit, and then squeal. And then another class who might invest in the best thing in the world and have it fail on their hands. This is the worst class to deal with we have found. To remedy any injury they might do, we should only heed the advice of practical bee men, who have been before the public enough to give weight to their assertions.

REMEMBER, we will send either a chromo or The Apiary to any new subscriber.

The Standard Frame.

This momentous question is being discussed with much force of late in the WORLD, doubtless to the great benefit of bee keepers as a class. We think that much good will accrue from the discussion of this question, for, although the "end is not yet," when it does come, and the proper size has been determined upon, paten tright men will be scarce, we opine. Had it not been for the opposition of interested parties this would have had more light shed upon it than now; but the mass of bee keepers are seeing that their interest lies in the direction of a standard frame; and are hastening towards that end.

So far we have spoken in the light of protection to the patentee and purchaser. Now let us see how it will benefit our pockets. Charles Dadant, in August number of WORLD gives some good reasons, and perhaps, the best, why we should adopt a standard frame. His views are based upon a long experience, and we could not add anything that would be of more weight than the points he elucidates. We trust he will not let our readers look in vain for another one of his interesting contributions in our next. But we think there is going to be some difficulty in deciding upon the size of the standard frame unless they give a reason for the sizes they prefer, other than the fact that they prefer it. Of those choosing Mr. Dadant's size (12x16) we have, as the nearest, Mr. Moon's 10x17; Mr. Nesbit's 10x17; and Mr. Argo's 10x11. Now, let each give good and plain reasons why they prefer their own frames, (and at the same time, we want every other bee keeper to do the same), and then we

can tell if the diversity of opinion is the result of locality, superior skill, and research, or a matter of taste. If it should be found to rest upon the adoption to locality, there would have to be at least two standard frames; but if the majority should pronounce their views to be the result of a general want instead of local, then the question will be quickly decided. As we are so far away from the place designated for holding the North American Bee-Keepers' Convention, in November, next, we are afraid it will be impossible to attend; but the disciples of the "new doctrine" will be there and we hope the question will be brought up. And if it is brought up, let its champions stand firm and declare their honest conviction to the exclusion of any interest or monied confederation.

The Outlook.

Owing to an unpropitious season, coupled with one of the worst depressions in financial matters the country has witnessed for a longer time than we can remember; the outlook is far from cheering, especially to those who are bearing heavy burdens.

We know of no country so favorably and lavishly blest as this, The South. And we know of none so unjustly dealt with as this same South. What, with a population of many millions of non-producers thrust upon it, as a result of the late war, with a horde of unscrupulous office seekers hovering over it, watching every chance and opportunity to quaff its life blood; with bigoted opinion in the North occupying the pedestal sympathy is entitled too, what can we expect but a gloomy outlook? We are

not attempting to talk politics, but when we give a result we must, per force, give the reason.

But, our reader says, What has this to do with bee-keeping? It has this to do with it: It has caused a feeling of distrust towards any new innovation of this kind into their midsts and rightly enough, too. It has caused people to look to the stern necessities of life for their luxuries, instead of indulging in such things as pertains to bee culture. And for this reason we have found it difficult to introduce our dearly loved enterprise among them. Then, too, there has been many impositions practiced upon the bee-keepers of the South, through the over-greed of bee hive venders; this, through the columns of the WORLD we have helped to subdue; but the feeling of distrust for anything pertaining to bee culture lingers with the victims.

We want every bee-keeper to see a sample copy of our WORLD. We would thank our friends to help us to distribute it, to that end. What is a circulation of 1,000, where there are so many who keep bees? Help us that we may help the masses, by a more general diffusion of that knowledge, which, in its way, will be a lasting benefit to them when the advice we give is put in practice. Help to make the outlook a better one a year from now.

THE book, The Apiary, goes to every subscriber to the WORLD. When you take into consideration the fact that we furnish this book and pay postage on all copies sent after Jan. 1, 1875, you will see that \$2.00 is a low price for the WORLD. Can you not send us one subscriber besides your own on those terms?

Mr. Pike's Queens.

In May Number of BEE WORLD we answered a query from D. A. Pike, Smithsburg, Md., in regard to a hive of peculiarly marked bees in his possession. As we had never seen the like before, we gave it as our opinion that they were impure. We have since had a queen from Mr. Pike to test, and can safely say we have never had a finer queen in our apiary. Her progeny is uniformly and handsomely marked; of good size and are as near perfect as possible.

Queens.

Still they come. We have received a fine lot of queens this month, among which we mention a lot from A. Gray—handsome and large—a fine one from R. M. Argo, an equally fine one from T. N. Hollett, &c. We intend to report on them as to their progeny, hardiness, &c., as soon as possible. We really can see no difference in the appearance of the queens for they are all good, and the reputation of their breeders are good, which is better yet.

Bees For Sale.

As will be seen by reference to our local columns, Mr. F. Benton offers a few colonies of Italian bees for sale. They are of the late T. B. Hamlin's stock, which is all the recommend they need. Those living in the South can save freight by purchasing of him.

An interesting and instructive meeting was the result of the convention held at Oxford. It was not as largely attended as it should have been, but it was made up by an earnestness and strong desire to learn seldom evinced by larger gatherings.

OWNERS of apiaries should commence equalizing their stocks for wintering, by levying brood comb from the strong ones for the weak. Do it at once.

OWING to the dryness of the season bees have been very backward about swarming this year, in many places. We shall expect to hear of late swarms in consequence.

AN exchange informs us that M. E. Williams, formerly associate editor of National Agriculturist and Bee-Keepers Journal, has taken charge of the Ohio Farmer.

OUR esteemed correspondent, Kinchen Rambo, has a new method of preserving fire while smoking bees. He soaks the cloths in a solution of saltpetre, lets them dry thoroughly, and then uses.

OUR many correspondents of the present number will accept our thanks for their good wishes, and their good articles, also. It is not often so many interesting communications appear in one number.

THE recent rains have given the bees another chance to work, as the late flowers are putting forth their fragrant blossoms rapidly. This will probably save feeding the late swarms, as was feared, although many localities will still suffer.

PREPARE something for the fair. If you have not an extra swarm of bees, or a fine lot of honey, take something else. Prepare something, and write to the WORLD how you succeeded.

QUINBY's Smoker can now be sent by mail for \$1.60. They are one of the best aids we ever saw of the kind.

WHAT will our "reviewer" have to say to the statements in present number of WORLD on cheap queens? One breeder says that one dollar queens are more profitable than honey raising, and another visa versa. When doctors disagree, &c.

MR. GEO. W. BOWEN of this city, has recently become the proprietor of one of the finest apiaries in the South, consisting of over 100 stocks. He offers a few stocks for sale in present number of WORLD. It is needless to add that they are pure Italians.

WE have had so many letters from our patrons, desiring, instead of a chromo, the book, *The Apiary*, that hereafter we shall only offer the latter as a premium. We shall keep up a supply of chromos, however, for any that may prefer them.

SOUTHERN CULTIVATOR FOR SEPTEMBER.—This old and reliable friend of the farmer pursues the even tenor of its way, striving earnestly and honestly to assist him during these hard and trying times. It advocates progress, only when it *pays*. There is nothing of the fancy and sensational about it. Solid, practical, suggestive, it is just what the real working farmer needs. The value which such farmers attach to it, is shown by the fact that four or five pages of each number are filled with inquiries by them, and answers by the editor, about points in practical farming.

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Twenty-five colonies of fine Italian bees from the stock of the late T. B. Hamlin, at reduced prices in October or November. All in Langstroth hives, in good condition, and with young tested queens. A large lot of extra queens for sale.

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New York Sun, Weekly.....	2.75
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Fruit Recorder and Cottage Gardener.....	2.35
Gleanings in Bee-Culture.....	2.75
Phrenological Journal.....	3.75

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

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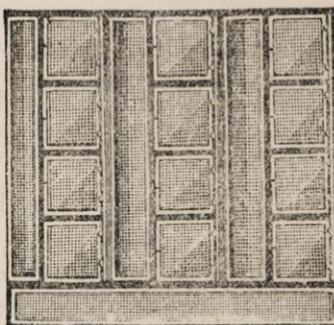


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ITALIAN BEES for 1874

Pure Colonies of Italian

Bees, Queens & Hives.

Bred from the best imported stock.

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ITALIAN QUEENS, AT REDUCED RATES,

I will fill orders for pure Italian queens, bred from imported mothers, of undoubted purity, and bred in colonies, during the coming season, at greatly reduced rates. Also have a few select colonies for sale. Send for price list. Address,

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**J. S. PROCTER'S
PEERLESS MOVABLE
Comb Frame Bee-Hive.
Patented Dec., 26, 1871.**

This hive has no equal in this country, and bee-keepers or those interested in bee culture, would do well to give it a thorough examination. Patentees, Owners Agents of other hives are respectfully invited to disprove—if they can—the claim of the “PEERLESS” to superiority over any and all other Patented or non-Patented hives.

FARM RIGHT & SAMPLE HIVE \$10

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Hundreds of my hives are in use in Southern Kentucky, around my home, and I sincerely believe that no one individual can be found who will have the hardihood to deny that my hive is just exactly what I represent it to the public. Send two stamps for circular.

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Importer & Breeder

OF PURE

Italian Queens and Bees,

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Apianal Supplies furnished.



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

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