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MOON'S

BEE WORLD.

A GUIDE TO BEE-KEEPERS.

VOLUME 1.

JULY, 1874.

NUMBER 8.

Correspondence.

Items in Bee Culture.

MR. EDITOR:—I propose to give a few items pertaining to apiculture, in brief paragraphs and will first ask to add to friend Byrd's article, (which is an excellent and timely one for new beginners,) on page 177 of BEE WORLD for May, on "transferring bees"—use a long thin and sharp knife, and keep it well oiled and it will cut comb smooth without gumming. Try it.

STRAIGHT COMB,

Can nearly always be obtained by elevating the back side of your hive, say about two inches, if comb frames are used, short way of the hive; if used lengthwise, then raise back end of the hive. Use bevel edge top bar in comb frames, and before using, wax the bevel edge by rubbing with wax. Try this and see if it is not a good comb guide, and there is no patent on the "raising, or wax."

SAVE ALL SOUND OLD COMB,

For future use. If it be old and black don't destroy it. Keep comb in close box, in dry and dark place secure from moth, and before putting it away smoke it over burning sulphur. A few

days before using it, wash it well. Yes wash it, it will improve it very much. This is the way it is done. Immerse the comb in clean cold water for a few minutes, then raise it out with both hands and give it a few quick jerks, and sling the water out; repeat the operation a few times, then place in the shade till dry, and before giving it to the bees, sprinkle with sweetened water, with one drop of oil anise, to half tumbler of water, and the bees will accept it readily. I thus use old comb, giving it to new swarms and it works well. Late in the swarming season I value a swarm and old comb enough to fill brood frames, worth as much as two swarms of bees without comb. Try it and see if it is not economy to thus use old comb in preference to rendering it into wax.

STOP ROBBERS

By placing gum camphor at the entrance of the hive, first closing the entrance so as to admit but one bee to pass at a time. The home bee will pass in and out, robbers will not.

THE HIVE QUESTION.

This seems to be a question with many bee-keepers in the South at this time, "What is the best hive?" This is a pertinent question, one that every bee-keeper is interested in and it seems

that but few individuals are willing to answer. I will drop the suggestion, that at the next annual convention of the bee-keepers of Georgia and Alabama, that meets sometime this summer, take the question under consideration and make up a verdict, and that it be published with the proceedings of the convention, for the information of all concerned and those that cannot attend can see for themselves.

This could be done by appointing a committee of discreet bee-keepers not interested in any of the hives before the public, and then and there let all those interested in the sale of hives attend and exhibit their hives before said committee. I have no ax to grind.

B. W. STONE, M. D.

Fountain Run, Kentucky.

A LARGE SWARM of bees may number 50,000, and in some colonies just before swarming there is from 40,000 to 50,000. 260 workers will weigh one ounce; 100 drones one ounce; 4,640 workers one pound, and 1,830 measure one pint. When gorged with honey they will weigh one-third more; when alive less than when dead, and emerging from the mother hive to swarm they weigh more.—KEY.

Catahoula Lake.

Catahoula Lake is a curiosity. It is said to be now about thirty feet deep, thirty miles long, and eight miles wide. In the summer, when the Mississippi is at low water mark, the bottom of this lake is a broad sheet of prairie covered with a luxuriant growth of grain and wild rye, and large herds of cattle and horses get fat on it. Thousands of tons of hay might be cut here for the New Orleans market. There is an immense supply of ship timber all around the lake. Vessels could be built here in the summer and fall, and floated down to New Orleans in the high water season. Bees are said to thrive wonderfully around this lake. Bee fanciers might here make some money.—Ex.

Answer.

I would say to my friend Argo, that I have frequently introduced virgin queens into colonies or nuclei, where they were not hatched, but since it requires more care than most of us have time to devote to such cases generally, and more than we need spend, besides a more general loss of queens, I choose to advocate the safest plan, therefore devote no time to the now more tedious processes of introducing them into new colonies of mixed and confused bees as once advocated, or the process of spraying them with sweetened water, or smoking them with tobacco until drunk or paralyzed with its fumes, or lastly the plan now advocated by some, of introducing them without any special preparation as soon as hatched from the cell.

Mr. Argo says Dr. Davis gave a method, and at once adds, "the same thing can be done without the cages of the nursery, by putting a cell into each of the combs of his No. 4 hive, and of course separating them into new colonies as Dr. Davis advised." Well, that may all be true; if he can persuade his bees to let the cells so introduced alone, and not destroy them. I am by this plan like Mr. Argo is with all the plans he tried and failed. I rarely resort to it now from its uncertainty.

And I think my friend Argo does not practice this plan either, if he can have the nursery or other cages at hand, for he immediately adds, "I cut out and cage the cells on the ninth day, and put one of these caged cells into each colony when I shall want to introduce a virgin queen, as soon as the old queen is removed." Well, this will generally do, if the caged cell hatches before the bees discover that they are made queenless, and the virgin queen is liberated before they start queen cells from their own brood, a thing they are prone to do.

I can only see that we differ in the kind or size of the cages to be used after all. I prefer to use such as can be used for feeding and safe keeping of queens, for some days when required

to do so, as well as to hatch and introduce them.

It is true that while the bees are gathering honey freely they will usually feed the caged virgin queens, but let that fail, and they will let the caged queens starve, frequently, unless fed liberally.

It is equally a recognized fact that even a fertile queen cannot be introduced into a stock made queenless, without some care. It often happens that we have to cage them and go through almost or quite as tedious a process as with the virgin queen. But why should my friend Argo be so persistent for me, or some other bee-keeper to give a sure plan to introduced virgin queens in any other way than the sure method I gave him, or the one he acknowledged as sure. Does he expect to be able to make any other plan more certain? No matter what method we pursue the cell must be handled very carefully, never jarring or injuring them in the least.

I can see no necessity of my friend Argo informing through the journal that he wished to lay aside the nursery—certainly I shall not object if he lays it and all his apiarian apparatus aside, that is if he wants to. I rather admire the considerate course of my friends Salisbury and Quinby in such cases.

JEWELL DAVIS.

Charleston, Ills.

HONEY should be allowed to stand for two days after being extracted, to allow all the particles of wax to rise to the surface. This should be skimmed off carefully, and the honey drawn out from the bottom. Wax induces crystallization, and buyers will not pay as much for crystallized honey.

THE most complete check upon robbing bees, is to place a bunch of grass or wet hay over the entrance to the hive. The bees will find their way to the entrance of their own hive, the robbers will be caught by the sentinels in passing through the grass, and soon cease their pilfering.—Ex.

Queen Raising.

THE BEE WORLD, April number, is again a welcome visitor at my Northern home, and I must confess that it has been greatly improved and promises to do its part in the advancement of apiculture.

After a careful perusal, I guess the contributors are all upon the right track, except Brother Kretchmer and the Editor. Now keep cool gentlemen, for if we differ with you in our views, we do so honestly.

On page 131 Kretchmer defines a queen that will duplicate herself, to be one that will produce a young queen, that at a certain age will have the same appearance that the mother had at the same age. So far I agree with him. Now on page 132 he says: "A duplicate cannot be raised unless from the egg." I do not propose to say that I know all about bees, for in fact what I don't know would make—well a large book, but then I am not too old to learn. I have reared queens pretty extensively for the past seven years. Last season I sold near six hundred, and have frequently given my nuclei comb containing only larvæ two days old, from which to rear queens, and upon the tenth and eleventh days after have had queens to hatch, that to all appearances were just as large, just as yellow, just as prolific, and just as longed lived and produced workers just as good as the queen from which they were reared. Again on page 131 he says, "from the time the larvæ hatched from the egg until, as a queen cell, it is closed from five to six days elapse, and during that time the feeding takes place." Now does he really mean to say that as soon as the cell is closed the queen ceases to partake of food?

Mr. Editor in your remarks on my article in April number, you speak of a natural law. Now when a colony of bees is deprived of their queen, when they have brood in all stages would not that natural law teach them to use their best material by which to retired their loss?, yet in nine times out of ten by the tenth day they will hatch a

queen which shows that they have used larvæ at least two days old, as the average time from the laying of the egg until the hatching of the queen which is sixteen days; but then our bees never were like other people's. Probably this accounts for the difference in opinions.

In the number before me the printer has made many mistakes; now it is really provoking to see mistakes in one's own article; for instance, on page 134 second column and tenth line, fog-ism is inserted instead of possession.

Bees are doing but little good in this section yet. Fully two-thirds of the colonies are at this date, May 25th, not as populous as they should have been a month ago; much of the trouble may be attributed to cool cloudy weather. I will close by admonishing bee-keepers to be diligent, patient, careful and subscribe for the BEE WORLD, and be happy. More anon.

T. N. HOLLETT.

Pennsville, Ohio.

We still differ from you, friend Hollett. We know that in their natural condition bees raise their queens from the egg, and think that the "natural way." Experience tells us that when the bees are deprived of their queen they are very much excited and use the quickest means in their power to replace the loss. At times they must inevitably take larvæ that has been fed as worker to rear their queens. We have seen a difference in queens raised thus, and have seen those that were good for nothing. This is the way fertile workers are produced. We have had these fertile workers show the same enmity towards a queen, that two queens show towards each other. Can you account for their origin on any other theory? We do not contend that these instances are the rule though, but on the contrary, they are fortunately, the exceptions, yet happening often enough to justify us in making the assertion we quote above. Ed.

Notes from Mississippi.

I write to acknowledge the continued receipts of your valuable journal, the BEE WORLD. I should have remitted long ago had I been able, but you know that we are the most oppressed subjects of our bigoted lord, "king cotton." You are aware also, that one of his most positive by-laws is to withhold the laborer's wages until the year is closed. Another by-law equally as positive, is that all debts contracted must be adjusted, and if any thing is left the laborer can have it, which is almost invariably minus.

Bee culture is at a low ebb with us, from the simple reason that his royal highness, "king cotton" is a jealous master, and can not allow us to serve any other lord but him. I wish some one would start a republican party as loyal to their cause against the king, as the present radical is against the old slave owners. But enough of this chat. If you would like to have my plan of a frame for a bee hive, I will give it. Have some pieces sawed three quarters of an inch square. Make you a mitre by dressing two boards one inch thick by three inches wide and any desired length, and nail the edges together. This will make a right angle, so that the edges of your square sticks, will fit in it. The slot in the box is made so that the sticks when sawed and placed together from a right angle with the edges or corners of the stick and the edges answer all the purpose of comb guides. The outline of the end of the stick forms a rhombus, commonly called a diamond. Now saw across the shortest diagram down the opposite corners one inch, get a piece of zinc, cut two inches in length and one in width, bend at right angles in the middle the long way, slip one edge in the place previously sawed in the stick, and nail with a four penny nail; slip the other edge in the same manner in the other stick and nail, and so on with all the corners, and you have a frame that is easily made, that can not be thrown apart, and is a permanent comb guide. If what I have

said, will, in your opinion, benefit your many readers, you are at liberty to make use of it. W. E. TRASK.

Rose Hill, Amite County, Miss., May 30th, 1874.

REMEMBER that there is a great many more pounds of honey wasted than there is gathered. This being a fact we can with safety increase our present stock of bees from the two million bee hives now in use, to perhaps five, not including the vast area embraced by the territories. The demand for a good quality of box honey can be safely depended upon, at fair and remunerative prices. And when honey producing has become a thing of certainty instead of luck, as some would have it, we shall expect to see it supplied in our stores as generally as other sweets. We are not painting a fancy sketch, but what we believe to be a fact.

Organic Vigor and Sex.

In investigating this subject, it may not be grateful to man's pride to establish the fact that "the female is the better half," but at the late meeting of the American Association for the advancement of science, held at Dubuque, Iowa, Professor Hartshorne, of Pennsylvania, read a paper on "Organic Vigor and Sex," in which he took the ground that "the births of females were an indication of excess of formative force, and of males of a deficiency on the part of the parents; and that female offspring was an index of the highest vigor."

After applying the theory to the vegetable kingdom, he extended it to animal life, his principal illustration of which was the development of bees, the birth of the female being the highest type of bee life, while that of the male or drone is the lowest, the perfection of the drone (?) over the worker being alone the result of the higher circumstances of nutrition, while the drone was the result of imperfect generation as well as less nutritious food.

He found an argument in support of his theory in the fact that double monsters, which he attributed to fissures in the ovum, and excess of formative power, were generally females. The vital statistics of different nations were adduced to show that increased or diminished vitality varied the proportion of male and female births according to his theory. He further contended that the reproductive power of American woman was lessening on account of their violations of the laws of Nature and of health.

At a meeting of the Academy of Natural Science at Philadelphia last June, Mr. Thomas Mehan read a paper on "The Laws of Sex." He said he "had at various times called the attention of the Academy to specimens of numerous plants, which illustrated the principles, THAT SEX IN PLANTS WAS THE RESULTS OF GRADES OF VITALITY, * * * * the highest grades of vitality only, producing the female sex." He exhibited specimens of the common black walnut (*inglaus nigra*), which furnished excellent illustration of the fact, showing that there were grades of growing buds. The most vigorous buds were devoted to the increase of the woody system of the tree. Lower down the strong last year's shoots were also buds not quite so vigorous which bore the female flowers. Below these were small weak buds which were often too weak to push into growth at all, but when they did, bore simply the male catkin. He was fully convinced "that there is not so great expenditure in vital force on the production of male flowers as there is in female flowers."

D. L. ADAIR.

In Phillips' Southern Farmer.

WE never get done learning. We look back and compare the knowledge of the past with that of the present, and what a contrast. We said to ourselves years ago, we surely can learn no more of the habits of the bee, and yet we learn something in every one of those years ago, and we seem to never be done. What will the end be!

Notes from Tennessee

MR. EDITOR:—You have, I've not a doubt thought that I've forgotten you. Not so, I took a great deal of interest in your first venture, the N. A. B. Journal, and assisted you all in my power. You failed. I think I know the cause of the failure, though the public may not know it. Through this failure, many lost confidence in you; but you have entered a new field, that of the Sunny South. May you be able to fill a want that has long been felt among Southern bee-keepers. You have a large field before you, and a way to make; may you succeed. Be prompt in all your issues, correct in all your replies, and the field is won. Bees have done well with me, though many of my neighbors complain of the loss of colonies. It was their own fault. The spring was unusually cold and wet, and when bees ought to have been out gathering from fruit blooms, it was too cold—the consequences, starvation. My bees I fed and my reward plenty of honey. I've taken up to date 70 lbs. of fine box honey from one hive. From none less than 15 lbs. The market is full, supply greater than the demand. Price 25 cents, though I do not sell for less than 35. Will keep it rather than sell for less. I've before me a letter from Louisiana, where a bee-keeper has taken two barrels of extracted honey from 15 colonies. I call that a good yield. I find more interest is being taken in bee-keeping South than ever before, and will continue to improve, though many are behind the age. Rev. W. R. Marshall of Shreveport, is one of those who are far ahead of the times. I had a very interesting visit from him, and I found from conversation with him, that he is as well posted as any bee-keeper in the United States, though a very modest retiring gentleman, and would not be heard from, unless drawn out. How's Miss Eva, I've not heard or seen any thing from her lately. I hope she continues to do as well as ever.

A. J. MURRAY.

Memphis, Tenn

A Chip from Sweet Home.

If T. V. Moore (see pages 183 and 184 of BEE WORLD), would make an observing hive and place in his best room, and watch the bees deposit honey he will make quite a different statement of the modus operandi. I have watched the bees deposit it, and this is the way it is done: The honey is made to keep the concave shape, already given it by the bottom of the cell, by capillary attraction and the bee. No thick "cream or puncturing or closing of holes" is ever seen in my observing hive, but when she deposits it she runs the proboscis round and round the surface of the inside of the cell, and gradually spews it out. Capillary attraction causes liquids to rise higher on the sides of vessels or honey cells; the smaller the cell, tube or vessel used the greater will be the attraction of the liquid to the solid.

D. D. PALMER.

Eliza, Mercer County, Ills.

THE new beginner must have nerve in handling his bees, lest he become excited and make quick motions around them, than which hardly any thing will exasperate them so quickly. The old bee-keeper understands all this and never makes a false motion, knowing that is one secret of successful handling.

THE Italian bee seems to have reasoning powers, and to exert them too. We have them in our apiary that we can handle with as much ease without using smoke as any swarm of black bees we ever had, with smoke. This being the case, it would seem to be a very easy matter to decide between the superiority of the two kinds, as long as their honey producing power is known to be so much greater also.

Bees in Tompkins County, N. Y.

Some time has elapsed since I wrote any thing about bees in this locality for your Journal. The excuse is I have been so extremely busy that I had no time to write. Bees have wintered in this locality, the past winter, every thing taken in consideration the best they have for five winters past, although we have had a cold backward spring. Bees seem to be in good condition and brooding quite rapidly. There are but few bees kept in this neighborhood now, compared with a few years past. The disastrous winter of 1872 discouraged a great many; so much so that they will never engage in the business again. I lost nearly all of my bees that winter, but have the promise of a few young swarms this season from a friend who resides some distance from here that had the good luck not to lose but very few stocks. I saw his bees awhile ago and they were very promising for the season. Nearly every sheet of comb was filled with brood. I hope we may be favored with a good season for bees yet. I am much pleased with the BEE WORLD, its Editor is not afraid to give the postoffice addresses of the contributors. There are some journals I have seen that just gives the name of the county, and it looks to me just as if they were afraid some one would write to some of their contributors. There was one thing that came under my observation this spring, that as long as I have kept bees I have never before seen or heard of such an instance. I had two good swarms of bees in my apiary; they set about five rods apart. I saw one afternoon a great many bees flying around in front of these two hives, while the bees in the other hives were apparently quiet. Upon examination I found that one hive was being robbed by the other. No fighting took place and both stocks were very populous with bees. The hive that was being robbed worked right along and carried in bee bread and pollen on their legs. Half a dozen at a time would come in with their legs loaded, and the bees from the oth-

er stocks were carrying off the honey. The bees in the hive that was being robbed offered no resistance whatever, although they have a fine fertile queen. The result was, I checked the robbing and saved the stock, and it was nearly full of bees. I can catch a few bees from any of the other stocks I have and put them in this hive and they will be kindly received. I never saw a swarm of bees so remarkably gentle as to offer no resistance to wards defending their stores from other bees. If any one ever saw or knew of such a case I would be pleased to receive their views of the matter through the BEE WORLD. I will now draw my article to a close, by wishing the BEE WORLD and all its readers a bright prospective future, and a good honey harvest.

D. W. FLETCHER.

Lansingville, Tompkins County, N. Y.

To the bees has been attributed the powers of reasoning by some, and by others the gift of a superior instinct. When storms are approaching they are to be seen flying to their hives from the fields, sometimes even before man is aware of the impending rain. Again they remember their keeper if gentle and do not resent his interference around their domicils, although they may attack a stranger with fury. This would seem to be the result of reason instead of instinct, yet many differ. Let the skeptic prove that it is not reason, and then and not till then, will we believe that it is instinct alone which causes them to act in such systematic ways.

Remedies for Bee Stings.

Among the various cures recommended for bee stings, and to be applied to the parts, are liquor potassæ, olive oil, vitriol, laudanum, vinegar, honey, saleratus and water, salt and water, soft soap and salt, raw onion, tobacco juice, a paste of clay or flour, the expressed juice of any green leaf, or of the ripe berries of the coral honeysuckle. As

animal poisons deoxydize the blood, their antidotes will be anything that contain much oxygen. The poison of a bee being an acid, and alkali must be employed to neutralize it. If, therefore, we were selecting for trial any of the above so-called remedies, we would choose either soft soap or ammonia. But if the individual stung is not very nervous, cold water applied to the wound will be quite sufficient, and it should not be rubbed. One great essential is, if heated, to get cooled just as soon as possible, and avoid becoming heated again for at least two days. Nothing is so apt to make the poison active as heat, and nothing favors its activity less than cold. Let the body be kept cool and at rest, and the activity of the poison will be reduced to a minimum. Any active exertion, whereby the circulation is quickened, will increase both pain and swelling.

WHAT pen picture can we draw more lovely than that of the farm house, surrounded by white painted bee hives nestled here and there among apple and peach trees, their inmates sending forth upon the scented air their busy hum, as they fly to and fro, now to the well, then to the flowers, or darting through the tree tops, quickly disappearing. How many of us can go back to the home of our childhood and see the same picture. Oh that such peace and quiet contentment might always last that we might go back to the old farm house, and once more sit under the shady trees oblivious of all care and knowing no more pain than in those boyhood days.

Alsike Clover.

Having had several years experience with this species of clover, I trust some of my conclusions may be of value to a portion of your readers.

Alsike produces more honey than

white clover, and continues much longer in blossom. The honey is of a good quality, a little higher colored than that of white clover, and not quite so delicate in flavor. It branches like red clover, and the same stalk will often have at the same time, many ripe heads, and as many more in different stages of maturity, even to the embryo bud, so that when the crop is cut for seed, the straw makes a second quality of hay if well cured. Horses, cattle and sheep are fond of it for hay or grazing.

I sow about five pounds of seed to the acre, with the same quantity of Timothy. It makes better hay than red clover, though not so productive. It does best on moderately moist soil. If grown with Timothy for seed, the latter should be cradled before the Alsike is cut. Sorrel and other small seeds should be carefully sifted out after the Alsike is threshed, but before it is ground out of the hull.

In my opinion every bee-keeper should try Alsike clover for his bees. I say try, for I am not confident that it will succeed in sandy soil at the South.

ELDRIDGE KNIGHT.

Maple Grove, Aroostook County, Me.

THE bee is very susceptible and any odor unpleasant to him arouses his anger to the highest pitch if not removed. A whole hive of them have been known to hurl themselves with inconceivable fury upon a horse when sweaty, resulting in the death of the animal, unless rescued from their venom.

It is the province of the bee to propagate and fructify many of our most beautiful flowers, by carrying pollen from the anther of one blossom to another. This is also true of many fruits. Can we doubt that Providence has been instrumental in making bees the companion of man, as well as flowers, almost continually since the creation?

How an Apiary was Saved from the Missis-sippi Overflow.

Mr. Hereford's Experience for 1873.

I intended to become a regular contributor to your Journal, as well to assist in your laudable enterprise, as to give my experience, success and failures in bee-keeping; deeming this a duty I owe to others engaged in the same business. But early in the season I was so busy getting my place to rights, land rented out, fences and cabins repaired, garden planted, etc., that I felt too much worried to write; and then our terrible river, seeming to wish to impress on us that it was truly the "Father of Waters," rose to an unheard-of height. We worked on the levees day and night, through rain and storm, trying to hold in bounds the angry flood; but all in vain; the levees gave away in many places, and all the plantations for many miles around were soon deep under water; and for two long months a deluge from four to six feet deep poured over our lands. Hundreds of houses and thousands of head of stock were washed away; and nothing is left but destruction and desolation. The labor of years was destroyed in a few awful hours! By the greatest exertion I saved all my bees but two colonies. The water commenced running over the levee at 2 o'clock. With two white men and two negroes I began moving the hives to a high place on the levee. The bees stung the negroes and they deserted me, but the two white men stuck to it in spite of the stings and water; by the time we had carried out a dozen colonies the water had risen to our knees; and with the last we had to wade in a swift current, four feet deep. Together with the chickens, sheep, cattle, and all the living things belonging to the place, the hives were strung along on top of the levee, which was from one to six inches above the water, and six feet wide. The negroes became panic-stricken and left as fast as they could get boats to take them to the high lands. Soon I was left

with my family and two other white families in the second story of my house, (the water being two feet deep on my lower floor,) we making up our minds to "fight it out on that line if it took all summer." The water has now nearly left my place. The hands have returned and are planting their cotton in the mud as the water recedes. You may smile, but we still hope to make a crop. So much for my reasons for not writing; and any one that has passed through the terrible ordeal that we have, certainly will think them good.

Now that all this is over, my attention naturally turns to my little favorites, who rise above, and scorn such small things as high water, and are doing as well as if we had had the balmiest spring, and our pastures had been covered with clover. I will now give a chapter of errors in my bee-management last year. On examining my hives early in the season I found nearly all of them in bad condition and very weak; but with a great deal of care and trouble I got them all right. Having large orders for bees and queens, I devoted about half my colonies to filling them. This paid but little, as it was no little trouble and expense to make hives to put the bees in and ship them; but all this I could stand had not the memories of so many persons proved treacherous, and they forgot to send the money to pay for the bees purchased. When the season was over I found many vacancies in my apiary and that promises did poorly to pay debts and feed and clothe my children. The colonies that I set apart for making honey I tried to fix up according to the most approved and scientific plan. To my sorrow, I did away with my two-story hives, put my bees in long ones. This I was soon convinced would not do, the combs being so spread out it was impossible for the bees to protect them, and the ends of the hives were soon filled with mice, roaches, spiders, etc., and the bees were kept so busy fighting these, they became discouraged and gathered but little honey. I gave the long hives

a thorough trial and feel so well convinced that they will not do, that I have put my bees back in their old hives, and not one long hive is to be seen in my apiary. Another mistake I made: The articles of the great Northern "bee kings" told us that to get a large yield of honey from a hive we must have a large swarm; and to get this large swarm, the frames, as they were filled with brood, should be moved out and empty ones placed in their stead; and as these were filled with eggs to continue to move them out until one of their immense hives was filled with bees. Without reflecting I tried this plan. I should have known that in every hive where the bees have built their own combs the queen commences her eggs near the center; and, as she requires room, this brood nest is extended in a circle, not only on the center comb, but to all contiguous ones until the oldest brood in the center begins to hatch out; then the queen returns and commences laying as before. Around and through this brood nest the bees cluster to give warmth to the brood. Thus we see everything is done by perfect system; and if this nest is broken by the combs being spread out and an empty one put in the center the system is disarranged and the colony for a time disorganized. The bees immediately try to remedy this; more honey gatherers are drawn in to enlarge the cluster and to provide feed for the young bees, and the consequence is that when the operation is repeated several times nearly all the bees are occupied by the brood, either in the cluster or providing food; and as this immense swarm hatches out it must subsist on the small store of honey in the hive, which is soon consumed and the colony will often perish from starvation though the hive is full of bees; but should the bees be able to overcome these difficulties, there is still another objection to this management: the brood in the combs on each side of the inserted comb being of the same age will hatch out at the same time, and while the queen is occupied on one

side the other is left vacant for a few days and the bees will immediately fill it with honey and pollen which renders it useless for brood and divides the hive by a solid wall, thus destroying, instead of adding to the brood-nest. I may be wrong in this, but one thing is certain, I did not get a pound of honey from any hive managed in this way. It is true I saved some of them and they contained an immense amount of bees, but, the best honey season had passed while I was occupied in raising them; and the long, dry season coming on they barely gathered honey enough for their support. In my opinion the queen is the best judge of the size of her brood-nest, and if the hive is not filled with old combs and the colony left alone they will make one to suit them and large enough for the capacity of the queen, and to raise enough bees for any colony. I think any change of the combs in the brood-chamber of a healthy colony injurious, and they should never be disturbed unless the colony may have become queenless and the bees bees filled the whole hive with pollen and honey; then the honey should be extracted and nice combs put in the center for the queen to make another start. Another hobby of our Northern friends with which I must differ, is feeding bees on sugar, syrup, candy, etc. I have tried feeding some of my weak colonies but have yet to see the colony benefitted by it. When I find one wanting honey I take a frame from a surplus box and give them; but on no account take one from brood-chamber of a good colony for them, for if it is late, or early in the season it will do the good one a great injury and in all probability will not save the weak one. A colony that has had a good chance and failed to provide winter stores has something wrong with its queen or hive. It may be disturbed by roaches or moths. If, after these are removed, or the colony put in a new hive, they still seem inactive we may be certain the fault is with the queen and she should be destroyed and the colony given a new queen or

added to another weak colony. Another delusion I labored under was that for bees to work well the hive must be well ventilated; and I now feel satisfied that I "ventilated", myself out of many hundreds of dollars by allowing a draught to pass through the tops of my hives. In this, as in everything pertaining to bees, we should take nature for our guide and approach it as near as possible. The hives should be made flat, so the heat from the bees will not be concentrated in a small space. The only openings I now have in my hives is the entrance, six inches long and one fourth of an inch deep, and two inch holes in front, three inches from bottom. These I find sufficient. When the hive becomes too full and the bees cluster out, I raise the surplus box one-fourth of an inch at one end. One more mistake I think I made was killing the drones. They certainly have some other duty to perform besides that of the male. It must be to concentrate the honey. I thought this a foolish idea when advanced some time ago by a writer in one of the Bee Journals. My experience last year leads me to believe he is right. Last season I looked over my hives every week and was careful to destroy all drones and drone combs, as I was raising queens for sale, and was particularly anxious that my queens should be fertilized by drones from two colonies that were extra fine. In the colonies in which the drones were destroyed I found the honey thin and uncapped and soured in the hive: a thing I never heard of before. I may attribute this to a wrong cause, but this seems to be the most reasonable and certainly the most plausible.

Now, Mr. Editor, I have given my last year's experience and you will not wonder, after such a list of foolish blunders, when I tell you that it was a bad honey year. I shipped but a little honey, and that was of such poor quality that I am ashamed of it. But this was last year. In my next I will give a brighter picture, how mistakes have been obviated. Many of my pet theories have been abandoned; but remem-

ber I live in a State where men turn from white to black, or the reverse, as many times as interest dictates. So do not be astonished at a small bee-keeper changing his ideas for the same reason; but, unlike them, I am not ashamed to acknowledge my errors, and if I prevent a few bee-keepers from going over the unprofitable ground I have, I am satisfied.

Now, ye would-be critics and reviewers, sharpen your arrows and go to shooting. Give us your opinions. Before closing, through your columns let me thank a kind-hearted lady friend, who, having heard that I had lost my bees by the high water, very kindly wrote and offered to give me a start from her apiary. This is appreciated; and though I rejoice that in all else she is my superior, in generosity, at least, I'll be her equal.

L. S. HEREFORD.

West Baton Rouge, La., June 8, 1874.

Scraps From Illinois.

SAVING COMB FROM MOTHS.

Friend "G." has trouble in keeping his empty comb from the moths, although he smoked 'em as per directions. I think he should have examined them a few days after the first smoking, and if any signs of moths were seen give them another dose. We kept between sixty and seventy frames of empty comb through the Spring, Summer and Fall of '73 and have a good share of it on hand now. We kept it in the hives in our shop where the doors were open every day, and all we did to keep moths away, was to give them an occasional smoke with brimstone. With us, the smoke will kill everything that is hatched, so that the worms will be seen on outer edges of the comb all shriveled up. But the eggs we cannot kill and have to wait a few days till they hatch out, and then give them another smoke.

Friend "G." are you sure the miller didn't have a chance to get to your balls of wax in the warm rooms? Ten or fifteen days is time enough to let a miller get a good start with her eggs.

ITALIANS AND BLACKS.

I agree with "Connoisseur" in regard to the qualities of the two kinds of bees, that it is the system of breeding from distant stocks that has made the Italian bee so much better than the native.

I have had both kinds and would as soon have one as the other with the exceptions of three reasons i. e., the Italians are much more docile—not so much danger of getting stung; the bees stick to the frames, do not run into the corners of the hive like scared sheep as the blacks do; and lastly the queens are found a good deal easier on account of their color and quietness. As to honey gathering, I can see no difference in them.

ROBBING BEES.

We have little trouble, ourselves, with robbers for we keep a lookout for them and with our adjustable entrance blocks give each stock the room they can defend well; light ones room for only one bee at a time, and they take care of robbers finely. A friend had a stock that were being robbed badly, do what he would to prevent it. Robbers would get in by the quart. I advised him to shut them up when the robbers were thickest and move them out into the country a mile or two; he did so, and as the robbers didn't know the way home, they had to turn in and help build up the stock which is now doing first rate, but before swarming they were getting pretty light.

TRANSFERING.

In transferring brood comb I save the trouble of fitting small pieces into the frames by laying them on top of frames putting small sticks under the corners to give room under side for the bees to hatch out, and covering with a quilt. A good way is to put into a box with slats across the bottom and movable lid. The bees will cluster on them and hatch out every bee, if they are heads up and down instead of horizontal.

W. M. KELLOGG,

Oneida, Knox County, Illinois June 12 1874.

**Bee-Keeping in Georgia.
What Hon. Kinchen Rambo
Thinks of it.**

I have been requested to write something for your valuable paper, and I would be perfectly willing to do so, if I could induce farmers generally to subscribe for the BEE WORLD, and go to raising bees, if only on a small scale. For without bees, I have no doubt there is honey enough lost every year, around every farm to supply the family bountifully. But when I read of persons realizing from one hundred to two hundred pounds of honey from one hive, in one season, I am almost ashamed of my article and my pin-hook business—twenty or thirty pounds a year from each hive. But even that is better than none at all. And I think I shall do better than that in the future; for MOON'S BEE WORLD is shedding a flood of light upon the subject. And if it is MOON-SHINE, it is a great deal more light than we of the South have ever had before. I am now using Thomas' patent bevel edge bars, adopted to my double sloping bottom, which keeps itself clean without the trouble of brushing out, having no trash nor litter in the hive for the worm to bed in. And frequently the worm itself falls out, so that I have lost only three swarms by worms in twenty years; and one of them was purely by my own bad management. I have been raising bees for about forty years, and during that time I have learned a few things by experience; and yet I find I know but little compared with most of your able correspondents. The first lesson I learned was not to attempt to hive my bees under half an hour after they had settled, from swarming. I paid dear for that lesson. Neither do I believe in sprinkling bees with water to hive them. Nor have I ever tried a tin bucket and pole, and don't think I ever shall. But if my bees settle on the body of a tree, or on a limb that I don't want to cut off, I go up and fix a little scaffold close under them so that they will not have far to fall, and spread a table cloth on it; and then if I can't

Take a lesson from the bee in industry.

take my hive up conveniently, I take up my hiving box, which holds a little over half a bushel, with a stick across it inside about three inches from the top for the bees to hold to, and a close fitting bottom on hinges. I place my box as near to the bees as possible, and tilt it back a little, so as to make an opening of about one and a half inches. I then rake off the bees very gently with a feather, or a small, smooth twig; and when all, or nearly all have gone into the box, I close the door and bring them down and pour them out at the mouth of the hive set upon another table cloth on the ground, and they always go in and do well. If any remain where they first settled I smoke them off, and they will very readily recognize the call of their companions in the hive and go to them. After sunset I carry them to a frame-work, in a cool, shady place, where the hive is swung by means of a slat nailed on each side about midway, with the mouth one foot from the ground, and facing either south or east; but never near the wall of a house.

I am perfectly delighted with reading the BEE WORLD, and with watching and opening and examining my two young colonies, in my two new patent movable comb hives, with my double sloping bottoms; and if anyone wants my improvement (as I call it,) they are welcome to it, when they get the right to use the patent. I have never tried the Italian bee, but I am inclined to think favorably of them, as a better bee for honey than the black, and more docile, and better calculated to defend themselves against the encroachments of the bee moth. All desirable qualities. But as to docility, I have robbed fifteen stands of black bees the present season, and hived two swarms, without any protection over my face, hands or arms; and have never received a sting, nor encountered a mad bee in the time.

Respectfully Submitted,

KINCEN RAMBO.

Floyd Co., Ga., June 19, 1870.

As the compass is to the mariner, so is the queen to her bees—a necessity.

On Honey Dews.

No subject brought forward before bee-keepers, has ever elicited more different opinions and reports, as the subject of honey dews. But this matter, like many others, has been so thoroughly ventilated, that it is not difficult, for one who has heard every side to decide who is right. Some bee-keepers, at first, stated that honey dew fell from the atmosphere on the leaves of trees and plants, just like common dew. This idea, however, had to be abandoned, from the fact that sometimes honey dew is found only on one kind of tree, such as hickory oak, or linden. Occasionally it is even only found on the buds of one species of trees. We saw it once or twice on acorns only. It is plain then, that the so called honey dew was no dew at all, for if it had come from the atmosphere, it would have been found on all kinds of trees at the same time.

It was also stated that honey dew is a secretion from aphides or other insects. But none of the experiments related prove evidently that such was the case. It is true that in several instances, aphides, or plant lice, were found under the leaves that secreted honey dews, but in most cases no insects were found. I have myself lately investigated this matter. Having found some honey dew on the leaves of oaks and hickory, I hunted for aphides and found some on the under side of several leaves. But after further research, I found leaves that had dew on, and no aphides, and other leaves that had aphides and no dew. Another fact, worthy of notice, is that the dew is always found on the upper side of the leaf and the aphides on the under side.

The most rational theory, in this matter, is that which asserts that the honey dew is an exudation from the leaves of the trees, caused by a certain state of temperature. This would account for the honey dew appearing only on one kind of tree at times. A strong evidence in favor of this theory is to be found in the fact that heavy

honey dews only take place during changes of temperature, before or after storms.

It appears that honey dew can be found on many kinds of trees and plants at times, but most generally on hickory, oak, linden, willow and one or two other kinds of trees. The honey harvested from honey dews is generally of a dark color and of a poor quality. One season we harvested about 500 lbs of it. It had been gathered on hickory leaves, and looked like molasses, with a strong walnut taste. It was not very good.

But it is said that honey harvested on the leaves of linden is of good quality and light in color.

C. P. DADANT.

Buckeye Bee Hive.

In a late number of the BEE WORLD, some one, signing the nom de plume of Sherendon, makes a kind of burlesque war upon the Buckeye bee hive. This correspondent of yours is evidently one of "ye olde fogie kynde"—sees no good in modern improvements, and doubtless would prefer a stage coach journey to a ride over a railroad, and would, if he could, revert the world back to "old pod auger days." But he has done great injustice to the best bee hive I have ever seen and tested. He says: "The sun and rain together warped my hive, they being made of very thin material, until the top curled up like a piece of hickory bark, and the sides appeared like a yoke of badly broke steers on a hot day pulling against each other. They were never painted but only stained." Now there are a great many Buckeye hives in use in the western district of Tennessee, in which section I reside and from which this communication is written; and let me say, that they are made of wood, that neither rain nor sun has ever yet "curled up," or injured in any other manner. Sherendon further says: "I was very anxious to see the interior of the hive containing the double swarm, and accordingly, one day proceeded to look into it. Well,

you have heard of Allcock's porous plaster, and know something of the sticking qualities of Spaulding's glue and Diamond cement. All of these articles weren't a circumstance, sticking and holding fast. I pried, and pulled, and jerked, but it was no go. Them insides were there. Did you ever try to pull a ground hog out of a hole that was a pretty tight fitting one? I was mad, fretted, and my Irish was getting considerably up, when Pompey, my colored hireling, who was about as stout as a gorilla in his arms, and from general appearance not many removes from that animal, approached and desired to assist me. The hive was situated on a bench about three feet and a quarter high. I told Pompey to pull the insides out of that hive. He placed his left foot against the outer case and pulled with both hands; then he grasped the right and left of the inside chamber and gave a pull by way of trying his strength, and then with all his might he brought a jerk and out it came with a crash. Pompey lost his balance and back he fell, holding on to the inside frame."

Now, in West Tennessee where the Buckeye hive is giving unexampled satisfaction, so far from the great strength of a sable "Pompey" being needed, the gentlest and most delicate ladies are daily managing and handling them with the most perfect ease. The yield of good honey from these hives is wonderful—many in this section having produced as many as one hundred and fifty pounds the present season. For protection from moths, for convenience of taking out honey without "bleeding" it, for preservation of comb, for security of bees, for durability and for all other good qualities, the people of Tennessee, except the "behind-hand" class to which your would-be facetious correspondent "Sherendon" belongs, regard the Buckeye bee hive the best in use, not excepting the Langstroth, which is very good.

Yours Respectfully,

A. R. WEAKES.

Jackson, Tenn., June 16, 1874.

Notes from Louisiana.

There certainly can be no doubt as to the vast superiority of the South over the North as a honey producing and bee-keeping region. To show how little our Northern brothers understand apiculture as practiced south, I refer to the remarks of Mr. Bened'ct, in the January number. He recommends housing bees in the south to diminish the consumption of honey. My bees gathered the last honey from the golden-rod of the 4th of December and they brought in the first honey and pollen from the swamp flowers on the 12th of January, showing a period of inactivity of only thirty-nine days. Housing bees here would not only be almost impracticable but would in every instance, I am satisfied, prove fatal to the bees.

I had a swarm of Italians this year, to issue on the 19th of March, the first drones having hatched a week before. I have had young laying queens before April 1st. Our honey-season lasts fully sixteen weeks, from May to September, and I have known colonies to gather abundant winter-stores after October 1st.

As to honey producing resources, I can vouch that this part of the South can compete successfully even with Hosmer's famous "basswood region." I have hives in condition to be extracted every other day and I have one colony which is now yielding at the rate of six pounds of extracted honey per day. Our spring and summer honey will rank as choice in any market, while our fall honey is of inferior quality.

In short, taking into consideration the mildness of our winters, the rapid increase of colonies and the long duration of the honey-harvest, I have often thought that it would "pay" our northern brothers to emigrate south and to leave for aye the regions of dysentery, foul brood and freezing winters. I feel satisfied that when apiculture has reached those proportions which with the present impetus, it must inevitably attain; when the honey-resources and countless advantages of the south are

known, this country will, as I have said in a previous article, become the honey-producing region of the world.

By the way, what can R. M. Argo mean when he says in the March number: "As to using queen-nurseries, they are a good thing for those who can get bees to, or rather as Novices says, persuade them to accept an unfertile queen. This is what I can't do unless the queen is hatched inside the stand I want to introduce her to."

Now Mr. Editor, a strange queen is known of course by her scent and acquires the scent by crawling among the other bees. A virgin queen that has not been released in a hive has no peculiar scent to betray her and will in every instance be accepted by any queenless stock and whether the colony has or has not started queen-cells. In many instances have I introduced virgin queens without any further ceremony than placing them on the combs among the bees and I never lost but one, a very weak one that I could not find after introducing and that probably died. I have introduced without difficulty virgin queens to nuclei formed half an hour before from colonies having laying queens. Let R. M. Argo try it again.

There is one topic, Mr. Editor, I would like to see discussed in your columns, namely, non-swarming. I believe the subject is of peculiar interest to us in the south. The increase of stocks is with us so rapid that we soon reach the number we wish to keep and then the question is to prevent or rather destroy the swarming propensity. The swarming fever is more intense in our semi-tropical climate than it is in the north; and south is the country "par excellence" to test the merits of non-swarming. I will tell you in my next article about my success in preventing swarming.

CHARLES PARLANGE.

Point Coupee, Louisiana.

PURE air is just as necessary for bees as for man. Beginners should bear this in mind, and never place them in positions exposed to air tainted with impurities.

Notes from Texas.

What has come of MOON'S BEE WORLD. May and June numbers have not put in an appearance; am anxious to look upon their comely faces; we are poorly posted in the bee line without them, for we consider the BEE WORLD worth all the Northern Bee Journals for the South, located in our midst and knowing all our wants. One item in our Journal to wit: The Comb guide moulded on the under side of the top bar, was worth more to me than the subscription of the paper, for they are the best guides I ever used, the Bees build the comb straight every time; I would not use any other guide not even strips of worker comb. I have simplified the mould thusly: Dress one strip $\frac{1}{4} \times \frac{3}{8}$ inches, level one edge, cut off to go between the side bars, make another strip the same dimensions only an inch longer, nail this on the square edge of the first strip and your mould is complete. To use it clamp the mould to the top bar placing the leveled piece to the under side with the thumb and finger tilt the frame on one corner under side of top bar up, at an angle of 45 degrees and pour in your melted wax against the leveled edge of the mould, greasing the mould occasionally.

I am using no other guide, and none but the Dixie Hive, am well pleased with both, but my bees have not gone into the honey apartment (upper story) yet on account of so much dry weather; but we had a good rain yesterday, and look for better things from our Bees.

Bees have not stored much surplus up to present (June 13th.) but are working very industriously on the horse mint and china. Hoping the BEE WORLD much success and that it may roll its ample rounds in our direction, we subscribe ourselves,

Yours Truly,

A. H. R. BRYANT

Kemp, Kauffman County, Texas, June 13, 1874.

The Intelligence of Bees,

The following illustration of the power possessed by insects to communicate their experiences to one another is given by a lady correspondent of the London SPECTATOR: I was staying in the house of a gentleman who was fond of trying experiments and who was a bee-keeper. Having read in some book on bees that the best and most humane way of taking the honey without destroying the bees was to immerse the hive for a few moments in a tub of cold water, when the bees, being half drowned, could not sting, while the honey was uninjured, since the water could not penetrate the closely waxed cells, he resolved on trying the plan, I saw the experiment tried. The bees, according to the receipt, were fished out of the water after the hive had been immersed a few minutes, and with those remaining in the hive were laid on a sieve in the sun to dry.

But as by bad management the experiment had been tried too late in the day, as the sun was going down, they were removed into the kitchen, to the great indignation of the cook on whom they revenged their suffering as soon as the warm rays of the fire before which they were placed revived them. As she insisted on their being taken away, they were put back into their old hive which had been dried together with a portion of their honey, and placed on one of the shelves of the apiary in which were five or six other hives full of bees, and left for the night. Early next morning my friend went to looey at the hive on which he experimented the night before, but to his amazement not only the bees from that hive were gone, but the other hives were also deserted—not a bee remaining in any of them. The half drowned bees must therefore, in some way or other, have made the other bees understand the fate which awaited them.

LET every bee-keeper write for the WORLD. He has had some experience that will benefit others, surely.

BEE, OR WASP STINGS.—Wet some cut tobacco and lay it on the sting. In five minutes it is cured.—Ex.

The Late Dr. T. B. Hamlin.

It is a painful duty to announce the death of so prominent an apiculturist as Dr. Thomas B. Hamlin, one who, as a friend was so highly esteemed by all who knew him. This sad event occurred at his residence near Edgefield Junction, Tennessee, on the 24th of last month.

Dr. Hamlin was born at Red Hook, on the Hudson River, N. Y., in 1810. At the age of sixteen he was left with no near relatives and but little education. His prominent position and financial success in life are wholly due to his own indomitable energy and perseverance combined with his uprightness of character. At about eighteen he was foreman of the largest watch-making establishment in Albany, N. Y., and probably the largest in the United States. After preparation in dentistry at Albany and while watch-making in Lee, Mass., he commenced the practice of that profession in Virginia. While there he took an active part in the organization of the first dental association known in the world. He afterwards removed to Alabama and thence to Nashville, Tenn., where for twenty five years he followed his profession with eminent success. More than forty years ago the young watch-maker of Albany, shortly after his marriage in Lee, Mass., commenced bee-keeping in connection with the watch-making at the latter place. For many years after he followed dentistry and bee-keeping in the south. In 1861 his health which had failed early in life, declined still more and giving up the practice of his profession he repaired to the sea-coast at Newport, R. I. At the close of the war he returned to Tennessee and devoted his whole attention to bee-culture and the nursery business. The extensive business of the "Cumberland Nurseries," which he established in connection with Mr. B. B. Barnum, a practicable nurseryman were conducted mainly by the latter while he devoted his attention almost wholly to the apiary. He was the first to introduce the Langstroth movable-comb hive and

improve methods of culture in the south, and to engage in the importation and raising of Italian bees, which he did extensively, and aided in their introduction throughout the United States. He assisted greatly in establishing the "Tennessee Apiarian Society," of which he was President and also the "National Bee-keepers Association," being Vice-President of the latter at the time of his death. His interest and enterprise in the promulgation of apiarian knowledge, especially in the South, are deserving of the highest encomiums. His own success in increasing his bees from a few colonies to over three hundred and continually getting large returns, furnishes a striking example of the reliability of his teachings. His little work on bee-culture has wrought a great change in the manner of keeping bees in many sections here.

His marked energy of character, his great perseverance, his lofty aspirations after perfection, and his kindness and affection as a husband, father and friend are well worthy of imitation. An upright, zealous member of the Church, a prominent leader in the masonic fraternity, held in high appreciation by the members of his profession, and an enthusiastic apiculturist, he is mourned by a large circle of relatives and friends, who are only comforted by the knowledge that he so lived that

"When the summons came to join
The innumerable caravan that moves
To the mysterious realms, where each
shall take
His chamber in the silent hall of death,
He went, not like the young slave at
night,
Scourged to his dungeon, but, sustained
and soothed
By an unfaltering trust in God, he approached his grave
Like one that draws the drapery of his
couch
About him, and lies down to pleasant
dreams."

FRANK BENTON.

Edgefield Junction, Tenn.

Notes from Iowa.

As some of the bee-keepers of the South might want to know how we are prospering up here in the way of bee culture, I thought I would send you a short article, giving a little of my own experience and a review of the June number of the BEE WORLD. Bees have wintered very badly so far as I can learn. Lost nearly two-thirds of mine; a portion of them were in a cellar, the rest were out of doors on their summer stands. The loss was about equal in doors and out. Some of them had plenty of honey in the hives when they died. Why they died I do not know. Other stocks starved in the fall when the bees were storing honey very rapidly. I went through my stocks and extracted the honey pretty close and snipped it. An early frost killed the blossoms before some stocks filled up their comb. I utilized the cards of honey as well as I could and thought they all had a sufficient amount to take them through the winter but I missed it on a few of them. I have wintered my bees frequently in the same cellar with good success. Nearly all those that died in the cellar left honey. A neighbor has seven left out of thirty. Mr. Flinway of Bloomfield, lost about half of his stocks, others lost all. Some have lost comparatively but few; but taken as a whole, the loss has been very heavy. The fact is, the starchy is pretty effectually knocked out of quite a number of bee-keepers. Some talk of quitting. I am going to go right along, take a lesson from my failures and try again. I have kept bees since 1852 and for the last ten years in movable comb hives. As a rule I have been pretty successful, both in the management of bees and securing good crops of honey. I am not willing now to say that I cannot succeed in making bee-keeping profitable, for I believe I can. I have two methods of making artificial swarms. Where there are quite a number of stocks to operate with, I take one or more frames of comb well filled with eggs, larvae and sealed brood from each hive (put-

ting an empty frame in their place) being sure to leave the queen where she belongs. I leave all the bees on the comb that may be on it. I put these frames to ether enough of them to fill up a hive, then I give them a queen or a sealed queen cell and I have a good stock right at once, ready to go to work. Bees thus mixed will not fight. The other mode I practice where there is but one stock to operate with. This should be done near the middle of the day when the bees are working freely. I lift the old stock from the stand, set it on the ground near by, place my new hive on the old stand with the frames taken out, open the old stock, hunt up the queen, place the card that she is on in the new hive, leave all the bees on the card that may be with her; I now take one or two more cards from the old stock and place them in the new hive, filling up both hives with empty frames and move the old stock to the place I want it to occupy and give it a queen or cell. If they get neither, they will rear a queen.

On page No. 197, BEE WORLD, Mr. Gammon says he has been unable to preserve combs. I keep combs without any difficulty in an up-stairs room in our house. It is an ordinary room 12x16 feet, lathed and plastered nicely, carpet on floor, etc. When I have combs that I wish to preserve I clean them, place them in the hive. Close the entrance to the hive and set it away. I have kept them repeatedly that way till quite late in the season. I have a lot there now, and think I can keep it till this time next year if I wish to.

Col. Peters, (page 199) gives what he considers the average profits of a hive of bees; also, the biggest yield he ever knew one hive to give in one year. I do not know the average profits of a swarm of bees, but greatest yield given by one swarm in one season that I ever knew of, was obtained by myself in 1871. I had a strong stock of hybrids that we will say were worth—hive and bees, \$9.00; they cast a swarm May 12th; swarm gave 261½ lbs honey (extracted.) Old

stock gave 80 lbs. (box) making in all 311½ lbs honey, sold at 20 cents per lb, making for honey sold \$63.30; add to that \$5.00 for new swarm, I have \$73.30. \$4.00 for new hive added to the \$9.00 makes my entire outlay \$13.00. Deducting this from \$73.30, leaves \$60.30, the profits of one stock in one season. Mr. McLean (page 206) thinks great changes might be wrought if certain persons could be induced to subscribe for, and read the Journals and other works in bee-culture. A friend of mine transferred a stock of bees from a log to a movable comb hive; he did up the job according to the rules of our best bee-keepers. The truth is, he was a practical and scientific bee-master, and an old hand at transferring, understanding the habits and customs of bees pretty thoroughly. In a few days he went back to see how they were doing. The old gent said they were not doing well, they were not carrying in honey as they ought to. My friend asked how he knew they were not gathering and carrying in honey, he said he could not see any on their legs.

J. P. FORTUNE.

Bloomfield Iowa June 15, 1874

Many writers upon bees affirm that the human breath is very offensive to bees; and for a person to breathe upon them, they will quickly resent the insult by using upon the offender, that formidable but small weapon nature has provided.

Breathing upon them gently; or, with the mouth wide open a blast is sent upon them as from the stomach, we know raises their combativeness in a moment. It matters not whether your dinner has been onions and fish, with soup seasoned with garlic, or a dish of strawberries or canned peaches has been your meal, it is all the same—it is offensive. But if you will pucker up your lips as in whistling, and blow a quick, keen breath, as coming from a small bellows, they will retreat, running on the combs the same as encountering a stream of smoke. H.

Murfreesboro, Tenn.

Albinism in Bees.

Mr. D. A. Pike, of Smithburg, Md., writes to the BEE WORLD that he has a singularly marked colony of bees. He says: "There seems to be two distinct races of bees in the same hive. One is very beautifully marked Italians. * * * The other half have three beautiful yellow bands. From the bands to the end of the thorax is quite white, different from what I ever saw before. I would like to hear if you ever saw any thing thus marked? Also, if there is any sure process or reliability in getting a queen fertilized in confinement?"

The Editor of the WORLD says the bees are no doubt a cross between the black and Italian bees. In this he is mistaken, as a cross does not produce such a result. There are no doubt pure Italians, from the description given. The only effect of a cross between the two races is to reduce the yellow bands on the Italians. It is simply a case of Albinism. Albinos are animals that from some cause fail to secrete the usual coloring matter peculiar to the species, and are consequently white. It generally extends over the whole surface of the body, and even to the hair and eyes, the eyes being red; but in some instances, particularly where the animal is parti-colored, or has different tints or spots, to only a part of the body or to extinguishing only one color. Melanism is just the opposite of Albinism, and is the undue development of coloring matter in the skin and its appendages, rendering the animal black.

Both of these aberrations are common to insects as well as the higher animals, mammals, and birds. Mr. Pike has, no doubt, seen white cockroaches and crickets about his hives that were albinos. White mice, rats and rabbits, are kept as pets and been bred until the peculiarity is reproduced. I have seen albinos among black-birds, crows, and other birds. The horned cattle frequently present specimens. I once met with a family of

negro children consisting of five or six who were all perfectly white, with snow-white hair and red eyes, whose parents were pure Africans and perfectly black.

Among the Italian bees, MELANISM is not uncommon; in fact there are few pure colonies that do not have among them workers with black tips to their abdomens, and some of the best queens I have had were melanos. In most instances albinism occurs among the drones. Mr. Cole of Tennessee had a colony that produced all its drones white, while the workers were the usual color.

Albinos are generally larger than the normal size of the species, while melanos are smaller. I once had a common grey queen whose workers were all as black as ink and only about half size. The old queen led off a swarm that went to the woods. The young queen that succeeded her produced the ordinarily marked grey bee, of the usual size, with an occasional melano.

It is not likely that Mr. Pike's bees will present any qualities other than color, to distinguish them from the Italian race, but if the peculiarity could be permanently established it would add to their beauty and render them a novelty. It is worth while—the effort to reproduce them. If, however, the albinism is imparted to them by the drone parent, the drones from the mother queen would be no better for fertilizing young queens than any Italian drones. If inherited from the mother, her drones, although they might not show the color, would be of value in reproducing the variety. I would suggest raising a number of queens from them which would be likely as distinctly marked, and in the same proportion, as the workers. Some of them would be apt to produce albino offspring and in a few generations by careful selection the peculiarity might become permanent.

With proper arrangements and attention queens can be fertilized in confinement, or such mating as is desired

may be secured by the German method of confining the queen and drones desired until late in the afternoon when no other drones are on the wing and then releasing them, after feeding them on warm diluted honey. At the proper time, say when the queen is six days old, this is a certain method.

D. L. ADAIR.

Hawsville, Ky., June 1, 1874.

The Drone Question Again.

Like causes produce similar effects; and similar effects are produced by like causes. Drones (the effect) are produced by queens (the cause). Nature's laws are simple and uniform and she does not require a multiplicity of causes to produce the same effect.

Friend Baker is not alone in believing that drones lay eggs, but so far as I know, he is alone among those who pretend to a knowledge of bee-culture.

Admitting the above proposition to be true, we would ask friend B. how he reconciles the theory that his drones were produced by a drone layer with the received teachings of all intelligent writers on apiculture, that queen, worker and drone are alike the offspring of the queen? As friend B. states that he gave his colony young brood and eggs, the presumption is that instead of the layer being destroyed when he destroyed his imperfect drones, the bees commenced queen cells and destroyed the layer producing the abnormality.

THE APIARY AND WORLD.

We were much pleased to find in the last *WORLD* that you are engaged in re-writing your book, *The Apiary*. And as the book, with the *BEE WORLD*, is designed to be standard works on apiculture in the South, we hope the editor will not consider it presumptuous in us to offer a few suggestions for his consideration, which we think will be corroborated in by a goodly number of his patrons.

1. That *The Apiary* be published in pamphlet form, the same size of the *BEE WORLD*, that they may be bound together in one volume.

2. That we have a full alphabetical index in the first part of the book, together with a likeness of the author.

3. That we have a full alphabetical index at the close of the volume of the BEE WORLD.

By the arrangement above suggested the two works could be bound together in one volume, which would be much prized by all lovers of bee literature.

The Apiary would be a fit preface to the BEE WORLD which we hope may be published for many years to come.

S. D. McLEAN.

Culleoka, Tenn.

Your suggestions are good, friend McLean, and corresponds with our idea of the publication, very nearly. Our friends must bear in mind that if they pay for the WORLD they are interested in it, and have a perfect right to give such good advice, and they are always thankfully received, too. We hope to be able to announce the issue of The Apiary in our next number. It will be sent free to every new subscriber from that date.—Ed.

Honey Market.

The BEE WORLD and its contributors can tell the people of the South how to secure great yields of honey—and in many cases great returns, no doubt have been made—but this is not making apiculture a source of much revenue when there is no market for the sale of the honey produced. It is very pleasing to one's vanity to have a colony of bees lay up for us from one hundred to five hundred pounds surplus; but it is certainly more gratifying and agreeable to the pocket to know that for a nice article of comb honey we can have ready sale at twenty-five or thirty cents a pound. This I believe is pretty much the ruling price in the New York, Chicago and Cincinnati markets. Of course, there are many places in the South where a FEW POUNDS of a nice fancy article, in small boxes or frames, can be sold at these figures; but no sales can be effected of large quantities except at very low rates. For instance, in Augusta,

Ga., a city of 20,000 inhabitants, containing probably as much wealth, intelligence, and refinement as any other place in proportion to its size in the South, honey brings from ten to fifteen cents per pound. It is true that nearly all comes into market in bad condition—in buckets, tubs, etc.—just as it was taken from the box hives when robbed.

The honey market in Atlanta is about the same as it is in Augusta. Strained honey in Savannah usually brings one dollar per gallon.

At these rates honey is cheaper than common syrup; and is not more appreciated by the mass of the people. Now it is very apparent that bee-keeping, on a large scale, can not possibly pay unless a market can be established for the sale of the honey. Some one suggests, ship to New York or Chicago. As it is very risky shipping comb-honey long distances (unless it could be sent without any re-shipment,) this experiment needs to be tested in order to know whether it will prove remunerative in the end. Instead of looking to the North for a market, I think it advisable for all Southern bee-keepers to make efforts to establish markets nearer home. Bear in mind that the above Southern quotations are for the common article as taken from the box hive. This is usually associated with old wash tubs, dead bees and their limbs, young bees in their maggoty and juicy condition, bee cocoons, black comb, a few honey-drowned flies, and a slight sprinkle of dirt, trash, etc. This is an average sample.

The very first thing to be done in order to improve our home market, is to put up the comb honey in the most attractive condition, in small frames and glass boxes; and the extracted, in glass jars. It must all be clean and neat. A good paying price must be asked for it; and nothing less taken. Our people must learn that honey is not an ordinary sweet, such as sugar and syrup, but that it possesses properties which justly entitle it to be called a medicinal food. In a future

article I shall speak of honey as an article of diet—of its chemical composition and medicinal properties.

J. P. H. BROWN.

Augusta, Ga.

Does not the age of the queen depend largely upon the seasons through which she passes, or, in other words upon the number of eggs deposited? We think it does.

Some queens are more valuable and prolific at two years old, than others (no better at birth than they) at a year old.

In an ordinary small hive a queen may live and keep the colony strong until the fourth year, but in a hive containing four or five times the space, combs and bees, she will be superseded the second season.

When not intending to swarm, but raising a young queen to supersede the old one, not sufficiently fruitful, we have known the old mother to remain in the hive fifteen or twenty days, after the young queen had become fertilized and was depositing eggs. Under these circumstances they appear to have forgotten their royal enmity, and the young queen seeming to realize that the day of her mother's "departure is near at hand," will quietly, in a few inches, on the same frame, examine the cell and deposit eggs with her declining parent. Remove the young queen and the bees act as though they were perfectly queenless, in traversing the hive and running in and out, exhibiting great distress.

H.

Murfreesboro, Tenn.

In regard to artificial swarms, as an object of experimental curiosity they may be tolerated, but as objects of benefit or of profit to the proprietor, they ought to be discarded from the apiary altogether. The truth cannot be too strongly impressed upon the mind of every keeper of bees, that one strong and populous hive is worth half a dozen weak ones.

HUSH.

In the light of the season a queen will lay 3,000 eggs a day.

May 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.

"To make bee-keeping profitable in the South."—Ed.

Keep bees, and keep them strong. None of your Hosmer pints and quarts, winter or summer, but gallons.

"I again ask friends Davis and Moon, Novice, and all prominent bee-men, for a safe and sure plan to introduce virgin queens to full colonies."—Argeo.

See a communication from Mr. Langstroth, in Vol. 7, No. 1, page 1, of the late Samuel Wagner's American Bee Journal; he there tells you how it is accomplished. There are other ways, safe ones, too, but the one given by Mr. L. is safe and sure.

"Honey, it is said, exposed to a gentle heat, becomes thin and throws upon its surface the many impurities."—Moore.

Honey exposed to a heat loses its aroma—fine flavor—and is no better than syrup or molasses.

"Examine the bees often, destroy all the moth millers that can be found, etc."—Eva.

Bees that have to be often examined for the purpose of destroying moth millers, are not worth keeping. Better give the comb and brood to some hive that is able to take care of it.

JUNE NO. OF WORLD.

"It is a fact, (why, I cannot tell,) that bees are shorter lived in the spring and brood season than in winter."—G.

Why, they wear themselves out working. Bees will live in your latitude eight or nine months if you give them plenty of honey, and they have

no brood to care for.

"Female drones, laying eggs."—BAKER.

You have proved it, so stick square up to it, Billy. It reminds us of a little fellow who, having brought to his mammy a very large egg from the hen house, (having two yolks within one shell,) desired to know what kind of egg it was. Being informed that it was a rooster egg, he cried out: I KNOWED it, I KNOWED it, for the old rooster was out there cackling with the speckled hen just now.

Perhaps they raised a queen from the brood given them, and could dispense with the further services of the fertile worker.

"We do consider it by far the best plan to swarm our bees artificially." Es.

Bees make, or rather gather honey. It takes honey to produce bees. If you have plenty of honey and not as many bees as is desired, we say divide. If you have as many bees as you wish, and honey is your object, and the greatest amount is desired, never divide, or swarm artificially. If they will swarm any how, give more room in old hive and keep them there.

SHERENDON.

WHILE bee-keeping is being pursued by people of both sexes, thus including both the strong and the weak, it would seem to be peculiarly adapted to the weak. We say peculiarly adapted to the weak, because those enjoying robust health can engage in any labor, while to those that do not enjoy that blessing, the fields of labor are limited. We have received many letters during the past few years, from ladies who have undertaken this vocation, and with a large majority it has proved a success; those that have failed attributing the cause to a lack of proper information.

Ladies' Department.



Honey in Abundance.

In the winter of 1863, just a few days before Christmas, father moved from Calhoun county, Miss., up here. He had a few stands of bees, but sold them, as it was not considered profitable to move bees in those days. As a general thing, father's children all loved honey. And I especially was very fond of it indeed. I being the elder, was thinking something about marrying, as I had had several chances, but not being exactly suited, had not accepted yet. I wanted a man that kept bees and loved honey, and to my great surprise, I found him within a few days after our arrival here. In a few days more, there was a little gathering of people at father's and the parson with them. It was not long before I found my name to be changed, or at least they said so. The next day we moved home, and I was perfectly delighted to find plenty of honey at my new home—anticipating a fine time. But it was not long before I was tired of honey. It was honey everywhere I went; in every room; up stairs and down; out doors and in doors; to the table and from; around the fireside and even to bed. I would like to know if any one can make a better report than that about honey. Now I don't care anything about honey for my own use, but have got a few stands of bees, and am raising some honey for the "old man" and children. I have sold 46 pounds of box honey at 20 cents. We have had a very fine prospect for honey this season, from

poplars and honey dew. Although we have not bees enough to gather it all, nor an extractor to help along with. If I am spared until another season, I hope to be better prepared; not that I care anything about it, but for the old man and children. I do believe he loves honey better than any one I ever saw.

Well, I suppose some one would like to know how I come to get so much honey and my husband not enough. That happened by me marrying a widower. You can tell the girls not to be too fond of honey.

Your friend, M. A.

DeSoto, Miss., June 11.

Notes and Queries.

June 18, 1874.

M. QUINBY, Esq.:

Dear Sir—I purchased a hive of Italian bees of you in May. I have had the combs out quite a number of times, and as yet have not been able to find the queen. I had them out to-day with the intention of making a new swarm, but although I looked very carefully, I could not find the queen. I take out first from one end of the hive four frames, and after looking over them put them back and then go over to the other end and take out the other four. Could it be that she would move from one of the last four frames on to one of those I had taken out and returned? Did you clip her wings before she was sent? In putting in new frames is there any objection to putting them in the centre of the hive—that is in the middle of the eight frames already in? Yours,

[If my answer will stimulate any one to study the nature of the bee, you are at liberty to give the enquiry as well as answer.]

ST. JOHNSVILLE, N. Y., }
June 23, 1874. }

MR. ———:

Yours of the 18th instant received. Before you look much for a queen at this season of the year, you should

first know if she is there. Your not finding her is the first indication—to me—that she is gone. But there is a better test of absence than not seeing her, and without the test, you never should think of making a swarm. That is young brood in the combs from the egg just laid, to the maturing bee. If there are eggs in the bottom of the cells, you can safely calculate that the queen is there, and if you cannot find an Italian queen, it argues that you want spees to make your sight good. Or that you are not acquainted well enough to recognize her when you do see her. If you have looked for her without finding the indications of her presence I have specified, it argues that you are not posted in their natural history. An Italian queen—unless very young—will not change from one comb to another. You can put new frames in the centre if you choose. If the queen has been gone so long that all the brood has hatched out, there is but little use doing anything till you get a new queen. Give me the particulars relative to the brood combs.

Respectfully,

M. QUINBY.

CORNERSVILLE, MARSHAL CO., TENN., }
June 14, 1874. }

MR. MOON:

Dear Sir—I would like to know what time your "Bee-Keepers' Association" meets in Oxford, Ala., the day of the month, etc. It was so wet and cold in spring that our bees got no honey from fruit trees; and then it turned off dry about the first of May and has been dry ever since. I have taken but very little surplus. Linden forms all. Cause, dry weather.

J. F. LOVE.

The Bee-Keepers' Association of Georgia and Alabama meet at Oxford, Alabama, on Wednesday, August 19, 1874.

EDITOR'S TABLE.



We have a large number of Italian queens due us, which we are looking for anxiously. If we are to have them let them be sent at once.

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

Don't fail to write and tell us how your bees wintered, how they are doing at present, and anything else you may have learned, that will be of benefit to your fellow bee-keepers.

In our obituary of Dr. T. B. Hamlin, published last month, we said "early career" for "earthly career." Mr. Benton calls our attention to it in another column.

Owing to the demand for our engravings being greater than we expected, we have been obliged to order a new lot, which will be here by the 15th of this month.

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

Our Chromos are giving immense satisfaction, and we are so well pleased with their success that we shall continue offering them to subscribers, knowing they cannot do any better for the money.

HAVE you paid your subscription yet? If not, send in the \$2 00 without delay, that the WORLD may wag on as of yore. The Chromo is worth the price asked for the paper.

WHO WILL MAKE UP CLUBS?—The WORLD will be sent with chromo, the balance of the year—five months—for one dollar. Many of our friends can get up clubs of from ten to twenty upon these good terms.

THE demand for a standard frame hive seems to grow more distinct and defined. We have thought that such a frame could not be adapted to the extensive range of territory occupied by the bee-keepers of the United States; but we may be wrong.

THE need of better honey markets and better prices has been discussed in an article by Dr. J. P. H. Brown of Augusta, in this issue. No subject could be more timely, and it should form a leading topic at our convention in Oxford, on the 19th of August.

WE own to having formed a hasty opinion of friend Pike's WHITE BEES; and from reading Mr. Adair's article on the subject we readily perceive that there can be such a thing as a white bee and still be pure. Albinism is no new thing to us, yet we believe it is rare among bees.

We are not given to finding fault, but it just occurs to us that a certain agricultural paper in St. Louis is copying our articles, sometimes entire, and does not give us proper credit. We are immensely pleased to see them in our exchanges, but it makes us feel bad to see said exchange palm them off as its own.

WRITE for the WORLD—draw out the experience of others by giving your own.

RECEIVED.—The American Newspaper Directory for 1874, Geo. P. Rowell & Co., Publishers. To the advertiser and business man, this book would seem to be indispensable, embracing, as it does, a list of almost 8,000 newspapers, and containing 896 pages. We think it the finest work of the kind they have published.

PROSPECTS in Northern Georgia are good for a fair honey crop this season. Farmers are relieving their bees of their surplus in Chattooga and Walker county, says the Summerville Gazette, and get from thirty to forty and forty-five pounds apiece from their hives. This applies to those who keep bees in the common box hive, we believe.

SEVERAL interesting articles are deferred until our next issue. Among them are one from M. Quinby on clipping queen's wings; one from Dr. Rush on a variety of subjects, interesting, too; one from Mr. Dadant on standard hives; one from Dr. Stone on Buckwheat, and so on. Any one of them is well worth the money charged for the WORLD for a year.

SAYS a friend who writes us June 9: "Two years ago you could scarcely sell a pound of honey in our village, and then at a very low price. To-day I could sell 1,000 pounds, and not supply the demand; and at a fair price, too. Since taking your Journal, I have tried to raise good honey, and I find that that which was considered of little or no value a year or two ago, is one of my most valuable products now."

Correction.

Through some mistake I was made to say in the last BEE WORLD that the "early career" of our friend and co-laborer in bee-culture, Dr. T. B. Hamlin, closed last Sabbath morning (May 24th). I do not know what the expression "early career" used in reference to Dr. Hamlin's death, may mean, unless it is that the career commenced for himself so early in life, had closed.

In speaking of one's early career I would understand that allusion was made to his youthful days, which, in this case were long since closed. Surely it may be said of one who dies at the age of sixty-four that quite a long career has closed.

The article referred to was not intended for publication, but was simply a private letter, designed to give the fact of the occurrence. An obituary was sent shortly after.

FRANK BENTON.

Our Club List.

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

Louisville Courier-Journal.....	\$3.00
American Agriculturist (and chrono, unmounted 10c. extra, mounted 25c.).....	2.75
Harper's Magazine, Bazaar or Weekly.....	5.00
New York Weekly Tribune.....	3.25
“ Semi-Weekly Tribune..	4.25
Rome Weekly Commercial.....	3.00
Illustrated Journal of Agriculture	2.75
Peter's Musical Monthly.....	3.75
Peterson's Ladies' National Magazine.....	3.15
New York Sun, Weekly.....	2.75
“ “ Semi-Weekly....	3.75
Fruit Recorder and Cottage Gardener.....	2.35
Gleanings in Bee-Culture.....	2.75
Phrenological Journal.....	3.75

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

As the honey-producing season approaches a termination, the bee-keeper sometimes becomes a little remiss in his duty to his bees; a little neglectful of their wants or needs. This should not be. We know of no season of the year when they do not need attention, though at times they need more than at others. An experienced bee-keeper in passing among his hives will quickly detect anything wrong, and as quickly prescribe the remedy. A good Bee Journal will soon teach the novice; and this, with experience, will tend to make him successful. If your bees have yielded a fair return to you for their trouble and any outlay for hives, etc., this year, see if you cannot make them do still better next. Bend your energies to that end. Try and make your bees pay better than any other industry of the farm. You will not always succeed, for our best laid plans are often thwarted; but when you fail once you may be successful a great many times afterward. If you carefully read the journals devoted to bee-culture, you will form an idea of the kind of hive that will suit you best. Don't buy an expensive hive when a cheaper one will do as well; and don't purchase one that is sold cheap from being poorly made. Use your judgement. Try and make all the box honey you can. It will sell for more and will sell quicker. To sum up, you must work, study, be patient and hopeful.

Don't wait for some one else to answer any question you may see in the WORLD, but answer it yourself, if you can. Your experience is worth something.

BACK NOS. supplied if desired.

At a meeting of the Warsaw, Ill. Horticultural Society, held on the 5th of May, the question of bees injuring fruit was discussed. Although subjected to a most merciless cross-examination, and with only one friend in the hall, namely, Mr. C. H. Dadant, the little forager came off victorious, as usual. Mr. Dadant instanced that their mandibles were not adapted to piercing fruits, but to manipulating wax. It was stated that bees had been seen working on fruit, but not until it had been punctured by ants, wasps and other insects. That nature had not given them an appetite for fruits, but when the juices were exuding and wasting, they were not loth to lose the opportunity of saving them. After a good, sharp discussion the subject was dropped, and no indictment found. It seems as though our horticultural friends would tire of discussing this subject so often, only to reach the same result every time, although we are glad to see such an interest taken, as stronger convictions in their real worth and benefit is the result reached invariably.

PLEASE hand this number of the WORLD to your friends, and call their attention to the valuable articles it contains. We get many subscribers in this way.

L. S. HEREFORD has an article in present number, giving a very graphic account of his experience with the late flood in Mississippi. See his advertisement in another column, also.

Is it not time something was done toward getting reduced rates on railroads leading to Oxford, for those attending the convention next month? Let it be attended to at once, that we may publish it next month.

Publishers' Department

ADVERTISING RATES.

SPACE.	1 Month	2 Months	3 Months	6 Months	1 Year
1 Page	16 00	30 00	40 00	70 00	125 00
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3-4 Column	8 00	15 00	20 00	35 00	70 00
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1-3 Column	6 00	10 00	15 00	20 00	30 00
1-4 Column	5 00	8 00	12 00	16 00	30 00
1 Inch	2 50	4 00	6 00	9 00	15 00
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BEE-KEEPER'S

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

ITALIAN BEES & QUEENS

FOR SALE!

1 Colony Pure Italian Bees 15.00
 1 " " Queen 5.00
 1 Dixie [movable frame] Hive 5.00
 I cannot supply lives in any quantity but only ship one to a person as sample, and any one purchasing bees or queens of me I give free right to make and use as many of the DIXIE BIVES as they wish in their own apiary. I guarantee purity and safe arrival of all bees and queens shipped by me. For further instructions please address.

L. S. HEREFORD.

[8] Hermitage P. O. West Baton Rouge, La.

ITALIAN BEES for 1874.

Pure Colonies of Italian

Bees, Queens & Hives.

Bred from the best imported stock.

C. P. DADANT & SON

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Finally,—Much useful information on the leading topics of the day, political, not partisan, Religious, not sectarian Education, Agricultural Commercial, etc. will be given, and no efforts spared to make The Phrenological for 1874, the most interesting ever published.

Terms.—Monthly 3 dollars a year in advance. Clubs of ten or more, 2 dollars each. Single numbers 30 cents.

The most liberal premiums are given. Address

S. R. WELLS, Publisher,
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ITALIAN

QUEENS & BEES

Hives, Extractors, Veils, bee-books,
and Journals

FOR SALE.

ALSO

Brahmas, Black Spanish and
Golden Pabright Bantams.
Chickens and Eggs.ROUEN DUCKS, CHINA GEESE,
AND BRONZE TURKEYS.
WARRANTED PURE.

Send for Circular of prices to

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Care of R. G. CRAIG & CO., 377-9
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FOR SALE

I have now on hand

Fifty Pure Italian Queens

Which will be sent on receipt of price.
 For one Queen in small shipping box - - 2 50
 For one dozen Queens - - - - - 25 00
 For one Queen with about a pint of bees in
 nucleus hive, 4 frames 11x5 inches, each 5 00
 Full colonies in Langstroth movable frame
 hive - - - - - 12 50
 Send money by P. O. Order or by Express.

Address

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AND

All Matters about Home

Send \$1, or \$2 for the

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Published at Summerville,

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It is the County paper, containing all the news of
 the county, and everybody reads it. Terms 2 00 per
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 the money. Try it for six months.

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We want an agent in every county in the South.
 Three different commissions paid. No capital re-
 quired. Send stamp for particulars to

A. F. MOON & CO.,

Rome, Ga.

EGGS, EGGS, EGGS,

PURE BRED FROM POULTRY.

Buff Cochins,

Light Brahmas,

Brown Leghorns,

Patridge Cochins,

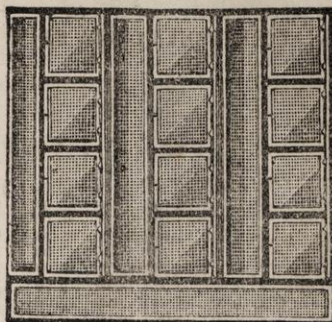
Rouen Ducks.

I am now prepared to supply a few
 settings of eggs from the above varieties.
 My fowls are FIRST CLAS BIRDS, selec-
 ted from yards of the best breeders in
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R. H. KNAPP,

Atlanta, Ga.

THE QUEEN



NURSERY

This convenient invention is now
 ready for sale.

Model Nurseries with Individual
 Rights..... \$5 00
 Township Rights..... \$15 to \$20 00
 County Rights..... \$30 to \$50 00
 State Rights on liberal terms.

Also I manufacture the best geared

HONEY EXTRACTOR.

in use, cheap and durable, \$12.00 each.

The Nursery Cages should be in ev-
 ery Apiary, for confining and introdu-
 cing Queens. Send your orders to

DR. JEWELL DAVIS,

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AARON BENEDICT,



Importer and breeder of

Thorough-bred ITALIAN

QUEEN BEES.

I also keep on hand full colonies of
 thorough-bred Italian Bees for sale.

My little book

'THE HONEY BEE.'

just published, is now ready to be sent
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 particulars address with stamp,

AARON BENEDICT,

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

Send for price list. Address. M. PARSE.

Pine Bluff, Arkansas.

ITALIAN BEES

AND

Pure Breed Poultry.



I will furnish full stands in Langstroth's Hives, early in the Spring, at \$15.00 per stand, and QUEENS at \$5.00 after 1st of May, purely tested, and in their highest grade of purity.

Also Eggs from the following six leading varieties of POULTRY:

ties of POULTRY:

	Per doz.		Per doz.
Light bramahs	\$2 50	Buff Cochins	\$4 00
Dark do	3 00	White Leghorns	2 50
Partridge Cochins	3 00	Hodons	2 50

I have a few pair of light Bramahs at \$5.00, and a few extra Cocks yet to spare; one part Cochin Cock, eight, months old \$5.00, White Leghorns \$3.00, and a few others.

My Poultry was selected with care from the best strains in the country.

Purity and safe arrivals guaranteed. For further particulars address

R. M. ARGO.

Lowell, Garrard County Ky.

ITALIAN QUEENS.



In their HIGHEST GRADE of PURITY, for sale at

Reasonable Prices.

Satisfaction guaranteed in every particular.

Address

T. H. B. WOODY.

Manchester, St. Louis county, Mo.

Twelve Years Experience Breeding Italian Queen Bees.

PRICE FOR 1874:

One Queen.....	\$2 25
Three Queens, each.....	2 12
Six Queens, each.....	2 00
Twelve Queens.....	22 00

All Queens warranted pure, and safe arrivals guaranteed. When otherwise the money refunded or other Queens sent. Address

H. ALLEY & CO.,

Wenham, Essex county, Mass.

IMPORTED AND

Home-bred Queens.

Gray's Improved Honey Extractor, Gerster's Wax Extractor, Queen Cages, Honey Knives, and Aparian Supplies generally. Poland-China Pigs, bred from prize stock. Orders solicited and satisfaction guaranteed. Enclose stamp for further information.



A. GRAY & CO.

Importers and Breeders of Italian Queen Bees,

Reiley, Butler County, Ohio.

THE VICTORY Bee Hive.

PATENTED SEPT. 20th, 1872.

THIS well known and popular hive was fully tested, and its superior advantages over other hives has warranted the patentee to send it forth upon its own merits. We call the attention of bee-keepers generally to it as the Victory.

Address patentee, A. R. Moulton, Fall Branch, Washington county, Tennessee. For the State of Georgia, address

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1871.

GLEN APIARIES.

500 HONEY EXTRACTORS.

1874.

ITALIAN QUEEN BEES

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OF PURE

Italian Queens and Bees,



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Aparian Supplies furnished.



300 GERSTER'S WAX
EXTRACTORS.
2000 HOME-BRED
Italian Queens.
ALSO IMPORTED QUEENS.

Honey Knives, and Aparian supplies
at bottom prices. Circulars free.

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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

State and county rights at reasonable prices and on easy terms.

WANTED IMMEDIATELY.

A few first class general or State Agents. Apply to or address, plainly,

J. S. PROCTER,

Franklin, Simpson County, Ky.

ITALIAN QUEEN BEES

Imported and home-bred from imported mothers. PURE as the PUREST and CHEAP as the CHEAPEST.



Southern Bee-Keepers will consult their interests by sending for my price list. Address

T. N. HOLLETT,
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BEE-KEEPER'S

SUPPLIES.

We can furnish everything needed in the apiary, such as Italian Bees and Pure Queens, Honey Extractors, Knives, New System and Champion Hives—six styles, Bee Feeders and Ventilators, Bee Veils, American Bee-keepers' Guide 244 pages, paper cover 50 cents; bound \$1.00; Wax Extractors, \$3.00; Alsike Clover Seed, Black Spanish Chickens, &c. Send for our large illustrated PAMPHLET, containing information for Bee-keepers, FREE to all.

E. KRETCHMER,

Coburg, Mont. county, Iowa.

MY HOME REFERENCES ARE:

Any intelligent, disinterested banker, physician, merchant, tradesman, artist, mechanic, farmer, bee-keeper, &c., who has no direct or indirect interest in any rival patent.

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.

J. S. PROCTER,

ITALIAN BEES and QUEENS.

BRED BY W. H. FURMAN.

At the Great Western



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I have the largest, purest and best stock of Italian Bees west of the Mississippi, and twelve years experience in breeding

Italians. Address

W. H. FURMAN,
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PURE ITALIAN QUEENS.

I have on hand for the Spring market, a limited number of Queens bred from select mothers..Price \$5.00... and shall be able to furnish pure Queens throughout the season, at reasonable prices.



A. SALISBURY,

Camargo, Douglass Co., Ill.

Pure and Prolific Italian Queens

AND

FULL COLONIES.



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

One tested queen in May \$8
" " " June 6
" " " July 5
" " " August 4

or after, - - - - - 4
Untested queens reared from the same stock at lower price. A reduction will be made on large orders.

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

HAMLIN & BENTON,
Edgefield Junction, Tenn.

SWEET HOME HONEY SLINGER

—AND—

ITALIAN QUEEN BEES.



The Sweet Home Honey Slinger is the only machine which suits us in every way. It is made substantial and well painted.

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

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

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

No time is lost in fastening the Combs

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

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

IT IS EASY CLEANED.

It has a tight fitting cover, faucet and handle.

ELIZA, MERCER Co., ILL., }

October 2d, 1873. }

D. D. PALMER :—I have used a Sweet Home Honey Slinger for two seasons, and would not exchange it for all the revolvable cans open tops, and all-day dripping machines in use. I cheerfully recommend it to all who wish a good durable machine.

JESSE BOGART,

All orders for machines must be sent early, as I shall only make as many as ordered.

Sweet Home Honey Slinger...\$15 00
Knives for uncapping each.....1 00
Italian Queens, each, safe arrival and purity guaranteed.....\$5 00

I shall have a few pure Italian Queens to spare as soon as the weather permits. Orders shall be filled as received. "First come, first served."

Address D. D. PALMER,
Eliza, Mercer county, Ill.