



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

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—This week to obtain a modicum of
knowledge to technical science, when
and with benefit of my knowledge of
the and other aspects of the bee, they have
one because has also out knowledge of
the and other bee and honey on
used to maintain and more has been said
that had been with benefit of the
knowledge that I don't know.

MOON'S BEE WORLD,

—A GUIDE TO—

BEE-KEEPERS.

VOLUME 3.

NOVEMBER, 1876.

NUMBER 12

For the Bee World.

Notes from Texas.

EDWARD PERRY.

MR. EDITOR—I have received your monthly regularly of late, and as you urge your readers to write about their experience for the benefit of others, I venture to give mine since I purchased a hive. Last December I bought a Tennessee hive from a Mr. Denison, who transferred a swarm of black bees into the hive I purchased, charging me twelve and a half dollars in all. Mr. Dennison pronounced the Tennessee hive the only really practical extant, it was patented in 1871. Mr. Dennison further informed me that black bees were preferable to Italian bees, that they are not so cross; that they worked earlier and later than the Italians and were more hardy. This statement rather surprised me, but I dislike venturing a contrary opinion as I was without experience. My bees did well un-

til Spring, as I fed them constantly on good syrup. The winter was mild, the bees seemed to be gathering pollen most of the time. In April I ceased feeding. In May a neighbor informed me that he found the bees in four of his hives starved out. He used box hives without frames. This alarmed me and on examination I found that in a few days more I would have lost all my bees. There was not more than a good handful, while the bottom board was covered with dead bees. I could see no honey I remarked that the living bees moved about slowly and apparently in a very weak condition.

I removed the dead, cleaned up the hive as well as I could, and fed good syrup. In cleaning out the hive I captured three small grubs which would have soon finished the hive. In a few days after I commenced feeding I noticed more life in my bees, in a week they were working hard bringing in pollen and honey. I continued feeding

for a week longer. In June I examined the hive and found the colony strong and working well. In July the bees were so numerous I determined to divide the hive. I took out half of the frames, four in number, placed them in the new hive placing the empty frames in the old hive and laid them down in front of the new one, they all walked in and among them the old queen. I tried to catch her before she got in but she flew up in the air, as she did so my son, standing near me, caught her and put her in the new hive before I could prevent him. I removed the new hive to its permanent stand. I, in a few days, found they had adapted themselves to the new order of things as they were storing honey and carrying in pollen.

A few days afterwards I found ten new queen cells started in the old hive. Bees were cross, and I received several stings that shook my faith in the pleasures of bee-keeping. I cut out all the queen cells but four, intending to cut three of them out in a day or two, but when I examined them again I found all of them gone, so I suppose the cell that was most developed produced the mistress of the hive. What became of the others I cannot tell. There were plenty of drones flying at the time the queen was hatched out and as my combs were soon filled with young brood I think she was fertilized. Ten days ago I took five pounds of honey from my old hive, three days afterwards on opening the hive I found fourteen new queen cells started which surprised me. The bees were quite numerous and I noticed two or three drones among them. I could not tell what had become of the young queen I think however she was in the hive. I closed the hive and called in a Mr. Hill, one of

my neighbors, a couple of days afterwards, who was somewhat of an expert in bee-keeping. We opened the hive and cut out all the queen cells but one, he examined the cells and assured me no eggs had been laid for some two or three days and from the number of bees felt convinced the queen had left with a swarm. This I regret very much as I have two empty hives and did not suppose there was no danger of swarming this late in the season. I sent for an Italian queen a week ago I am in hopes it will arrive before my queen cell is hatched out when I will remove the cell and introduce the new queen. Yesterday the bees in my old hive, that is queenless, were very cross and attacked everyone that came within twenty yards of them. Something appears to have disturbed them. One stung me on the ear, while two of my boys have been stung in the face. The bees were making a great noise in their hive, it was only after I smoked them that they ceased flying around and at someone in sight.

It is ten months now since I bought my hive. I have spent about \$16 in all and have two swarms and ten lbs. of honey to show for my outlay. This is not very encouraging, but I have had considerable experience and can now handle bees without much difficulty. I have learned to tell a worker from a drone and know the queen when I see her. I know when the bees are doing well and can tell if eggs have been laid the day I examine the hive. The different cells are all familiar to me, and I am in hopes by next year to increase my stock and obtain a fair supply of honey unless this should prove to be a poor honey district. I am inclined to think an abundance of honey can be obtained here as my bees are strong now.

We have a few bee-keepers here, some of whom own a dozen of hives or more. They all complain of this being a bad year for bees, no honey and no swarms. I will not draw on the patience of your readers by extending this letter at much greater length.

I will merely add that my experience proves to me that the keeping of bees is interesting and profitable if a little attention is bestowed on them, while with a fair amount of patience and perseverance, a very extensive knowledge of their habits may be acquired, sufficient for, at all events, for their universal management.

Dennison, Texas, Sept. 10th, 1876.

For the BEE WORLD.
Proceedings of the South-Western Bee Keepers Association.

Pursuant to the call of the preliminary meeting of August 17th 1876, a number of Bee-keepers met and organized a permanent association, electing the Rev. Dr. W. K. Marshall, President, Wm. L. Gordon, Secretary and J. M. Bowles, Treasurer.

On motion, Resolved, That this Association be called The South-Western Bee-keepers Association.

On motion, that the chair appoint a Committee to draft a Constitution and By-laws; the chair appointed the following named persons:

Wm. L. Gordon, J. M. Bowles, Col. L. L. Tomkies and W. D. Wylie, their report to be handed in at the next meeting.

Resolved, That the reading of essays &c., asked at the preliminary meeting to be read to-day, be deferred until our next meeting.

Resolved, That persons wishing to become members can do so by enrolling their names; when the following were enrolled:

Rev. Dr. W. Marshall	Marshall, Tex.
J E Jones	" " "
Col L L Tomkies	Shreveport La.
G W Stoner	" " "
Wm L Gordon	" " "
J M Foster	" " "
Dr J F Davis	" " "
J M Bowles	" " "
Rev W E Paxton	" " "
Rainey Carter	" " "
W D Wylie	" " "
John R Williams	" " "
Capt O L Durham	Keachi, La.
G W Jefferson	Kingston, "
W C Hill	Jefferson, Texas

Resolved, That the meeting be adjourned to the 2nd Wednesday in March next at 10½ o'clock, A. M.

W. M. L. GORDON, Sec.

Well, our meeting is now on its permanent footing, and we trust, it will in time assume the relation to bee-culture we desire of it.

There was not the number in attendance we had reason to anticipate. We know of numbers who are very much interested in the improved method, but did not attend from one and another cause. We are passing through an epoch that tries the spirit, being almost driven from the firesides left in trust to us, while all are striving to avert financial wreck, our farmers are using all diligence to get their cotton housed ere the election time so demoralizes the labor that it would go to waste in the field.

So, our attendance was light in number; yet, we had a pleasant meeting, being of the easy social type; the general report is that bees have done well. Dr. Marshall, our bee man *par excellence*, reports four tons honey, and the beauty about it is, he has been able to make a market at home for the sale of it all.

Mine have done well, have increased them from 19 to 40 this year.

Col. Tomkies and myself bought lately two queens of Dr. Brown. One of them died the night of her introduction, the other is doing well, examining her palace to-day. I find her brood coming out upon the combs.

Feeling some interest in hives, I asked, our meeting, if any could indorse a hive when the honey was to be made laterly, or if any of their friends was now using or advocating the use of such a hive, the universal sentiment was, that honey can be better obtained above the brood apartment, and if it could be so, all comb frames seven or eight inches deep.

I distributed the *WORLDS* sent, and believe you will receive some subscriptions. Very truly yours,

WM. L. GORDON.

For the Bee World.
Apiary Report.

E. C. L. LARCH.

Report of our apiary for three years commencing in the fall of 1873 with 16 hives of my own, which were wintered with success along with several others. These gave me an average of 125 lbs. and increased to 50. Got 25 more for transferring, wintered all and got 86 lbs. per colony and increased to 120 colonies in 1875. These were all wintered without the loss of a single colony again, in the spring of 1876 we commenced with 118 colonies and got an average of 106 lbs. and increased to 130 colonies.

We got 1200 lbs. of our premium honey of the same which took the premium at our State fair at St. Louis. 2500 pure basswood and 4500 of Basswood slightly mixed with clover honey, taken in August and 4300 of Fall honey

making a total of 12,500 lbs this year and an average of over 100 lbs per colony for three years.

For the BEE WORLD.

Sketches From Tennessee.

S. D. MCLEAN.

HELP EACH OTHER.

To be useful to others is the grand purpose for which the power of communicating thought was bestowed upon us, and he who does the least favor, is represented as not "losing his reward." Here is a practical lesson for all. If we can benefit our fellows without discommodeing ourselves, is it not commendable in us to do so?

The right spirit was manifested in the article "50—100—200 Queens" of the Oct. *WORLD*. It is exemplified in all those premiums so generously offered in the *BEE WORLD* to increase its circulation, by which light may be extended to greater number on this increasing industry of our country. It is also exemplified in those practice lessons taught by disinterested contributors to the column of the journals. We might go on and multiply cases as above but our purpose is not to eulogise those referred to for having done their duty but to induce others to follow their example. There is a work for all to do in all the avocations of life and if each performs his part it will result in the common good of all. If bee-keepers generally were actuated by this motive and would unite in throwing all the light possible on apiculture in all its phases, each would be enable to row along the current with more ease than when he has singly to combat every oposing wave.

PRACTICAL.

Articles on practice bee culture are always acceptable. It is alone from

such articles that beginners receive much benefit.

Theoretical discussions and controversies may interest the bee-keeper who has attained the stature of manhood in the business, but not so with the beginner. He desires information. That information is best obtained from the practical articles suited to his status as a bee-keeper.

One of your correspondent, Rev. Mahin, is specially engaged in writing such articles for the present volume of the BEE WORLD. Many good lessons are taught in these articles. True some are unsuited to your readers of the South but are entirely suited those in his latitude.

We hope he may continue the good work and others too fall in that we may have more of the practical part in bee-culture.

BEES.

Bees in our locality are improving those pleasant Autumn days in gathering, storing and sealing up for future use, those sweets from Fall flowers that would otherwise be wasted. See the economy in owning bees.

Cookeville, Tenn., Oct. 10, 1876.

For the Bee World.
Two Queens in One Hive.

CH. DADANT.

This irregularity in the habits of bees is very disagreeable, and too often has led the buyers of bees to accuse their vendors of having sent impure queens.

Two years ago Mr. Thos. Ragles, justice of peace of Oakwood Hamilton, county, came to our apiary to buy a colony of bees with imported queen. All our queens of the proceeding season were sold; but we would sell him a colony with queen introduced some fifteen days before. I pointed one to him as

having a queen very healthy and prolific. My Son, when looking if this hive of imported queens were laying, had remarked their queen; she had commenced to lay as soon as liberated for there seemed to exist no interrogation in the stage of the brood. We searched for the queen in the colony but were unable to find her. The colony was entirely black; we had bought it a few weeks before. Well our friend concluded to take this colony; sure that, within a week, he would see the yellow bees hatching.

Ten days after he came back. Did I understand you right? you told me the Italian workers would hatch in about a week? Yes! Ten days have elapsed since I bought your colony, and no yellow workers yet! all the hatching bees are black. Indeed my Son went to his apiary, hunted for the queen, and found a black, a pure black queen, instead of our imported. We were sure of having killed one, therefore there were two queens in the hive. Now when we look at our newly imported queens to see if they are laying, we examine carefully the brood, to see if there was an interruption in the stage of the brood.

Last year Mr. J. H. Emerson, one of our nearest neighbors, brought some stands of bees at his home to begin bee culture. I introduced an imported queen in one of his colonies, after killing his black queens, then he united a few queens. Two were very handsome, two were at least as natives and produced black bees. One day he saw his imported queen, she had become small and black. The next day I went to his apiary, opened the hive with him that queen was big and leather colored. There were two laying queens in the hive; some workers hatching pure

Italian, some others pure black. We were unable to find the black queen. A few days after he found the Italian queen, dead in front of the hive, and he found the black queen alive in the colony.

A few weeks ago my Son was introducing a few impurely marked queens, to make room for imported. He was helped by his sister Eugenie. There is the queen, said Eugenie, she is very light! She is very dark, replied Camille. And he put his finger on a dark queen, while his sister followed with her eyes, the light one, which was at less than two inches from the other. Both queens seemed good and young.

Now let us suppose that we had found only one of these queens, our imported would have been killed, and we could send as imported, a hybrid queen which would not have given satisfaction. No doubt most of the complaints on the cheating bee breeders come from occurrences about like those that I have narrated. We cannot always prevent such mistakes, even with the best care, and it is fortunate that they are not of more common occurrence.

Hamilton, Ill. Oct. 5th, 1876.

For the Bee World.

Mischance.

CH. CADANT.

Our correspondent of Italy writes us that his endeavor to get Cyprian bees for us resolved unfortunately. The man in charge of buying some colonies of bees in Cyprus found a great difficulty to procure them; the bee-keepers there think that if they sell bees the remaining colonies will be dissatisfied and quit the apiary. Yet he succeeded, and sent five colonies. But, lo!

they arrived smashed; combs and broken earthen hives all mixed and drowned in honey. A few bees were alive yet, but all the queens were dead. So our first attempt was far from being successful. We will try anew.

We will receive five queens from Carniola and will try them and report.

For the Bee World.
Carniolian Queens.

CH. DADANT.

The Carniola queens have arrived, only three alive. These queens are very dark, as dark as common queens, with some narrow stripes of dark leather color. But they are very large. Generally after a long journey the queens are small. The Carniolian are as big as good laying queens, of course it is to be presumed that they will enlarge when rested and laying. The size explains the great fecundity attributed to these queens. Yet it is to be regretted that they are so dark, for their color will prevent their introduction among the lovers of yellow bees.

I have not seen their workers, for they were introduced in the apiary of my correspondence in July, and arrived accompanied with Italian bees. But if I judge of the color of the workers, by the color of the queens, they will resemble very much our hybrids.

These bees are received for experiments and not introduced for sale.

Hamilton, Ill. Oct. 10th.

For the Bee World.
Age of Queen Bees.

H. ALLEY.

FRIEND MOON:

We came to the same conclusion several years ago in regard to the age of queens as given here.

A good prolific queen, say one that will lay one hundred thousand eggs in a year, will play out in two years, that is, she won't be worth much the third year. Most queens are good for from between two hundred thousand and three hundred thousand eggs during her life.

A bee-keeper in New York state wrote me two years ago for some queens and stated that he had visited the apiary of Aaron Benedict and was shown a queen that had of us that had been breeding beautiful queens from, for four years. Now here is a case where a queen lived four years.

As a general thing queens are not worth much after the second year.

We have known queens not to lay much the first year but during the second season they would do well. As to prolificness there is a great difference in queens. While some are very prolific others are very slow and of course are worthless.

Wenham, Mass.

For the Bee World.
How to Market Honey.

F. C. L. LARCH.

This is one of the most important subjects to those who have large apiaries and perhaps the least understood. In the first place you must aim at quality instead of quantity and build up a home market which you can rely upon yearly, to take all that you can produce sell at home for what you can get in the principal markets and deduct freight if necessary rather than ship to distant parties. By a little energy and perseverance you can induce the grocers in most of the towns in your vicinity to engage in the sale of honey. If they will not buy get them to sell on commission. At first, also, sell to as

many of your neighbors and friends as possible, and in all cases endeavor to give satisfaction.

Do not use any old barrels or kegs because they are cheap, but use clean new barrels and kegs, as they sell better and are cheaper in the end.

Should you prefer to sell comb honey put it in uniform nice packages, so that it will attract attention by its neat appearance.

The great fault with most beginners is that they raise bees instead of honey, until they get a large apiary, when they suddenly turn their attention to getting honey, and should they be successful, they will find themselves with a large amount of honey and no market, because the market is undeveloped.

They are then completely at the mercy of the honey merchants, who will endeavor to get the honey at their own price.

If beginners will act upon the hints here thrown out and build up a home market simultaneously with the increased amount of their productions, until the demand is greater than the supply, all will be benefited and none have cause for complaint.

For the Bee World.
Broken Pieces.

+(x)+ KINCHIN RAMBO.

MR. EDITOR:

Some of your correspondents seem anxious to hear the news, whether good or bad. And I can say in a few words, my bees have been very little profit to me this year. But I confidently expect a better season next year. Even my "TANGLE FOOT" failed to yield me one ounce of honey this fall; owing, I suppose, to the extreme dry weather. Yet I think my bees generally have sufficient stores to take them safely

through the winter, on their summer stands. For we never think of housing bees in this country.

I have come to the conclusion that it is a bad plan to be handling bees too often, for whenever I begin to handle mine, they begin to eat; and if it is not late in the afternoon robbers will come. I have been somewhat pestered to keep the fire burning in my Quinby smoker, when not in active use; but I have made a small aperture in the lower end, and by keeping the wire cloth clean, it now does a great deal better.

Bees have been remarkably spiteful this year: and the Italians are by no means an exception to this remark. But in hiving, all have been very docile.

On the 22nd day of May, my Italians swarmed, and I hived them in an extra large hive—about 3000 cubic inches of working room; and in four weeks they required a box. I gave them a small box with three racks. These they also quickly filled with comb, and the cells nearly full of honey; but never would cap it over, so as to authorize me to take it, and now they have taken it themselves.

But my young queen which was left in the old hive, unfortunately mated with a black drone, and is giving me a family of hybrids. But they appear to be very good workers. I examined them a few days ago and they are rich in honey, but no young bees.

Floyd County, Ga. Nov. 1st. 1876.

Absolute Purity.

R. A. Caralton enquires why it is, that the Bee-keepers of this county are so silent upon the drone question?

While it is a fact that nearly everything connected with the management and history of the honey bee has been written time and again, yet here is one

of the most important parts connected with apiculture, and one we are led to believe lays at the foundation of true progress in bee culture is passed by scarcely noticed. We too have watched this subject with a good deal of interest and from our first experiment we were satisfied that the mating of an Italian drone with a black queen did effect her drone progeny. The Dzierzon theory is that a pure Italian drone mating with a black queen will not effect her drone progeny, that all the drones will be purely black like the mother, notwithstanding their father was a pure Italian.

This idea may look consistent with some, but in the absence of positive proof we cannot sanction it. We have read of the desecrations and microscopic examinations that has been so often made of the queen, and it being a fact from such examinations, that a small glandular sac lies near the terminus of the oviduct, in which is deposited the seminal fluid of the drone, and as the eggs pass by the mouth of this sac it must receive its fertilizing influence, which gives life to the bee, or its race.

Strange as it may appear, this small sac contains enough of this fluid blood to impregnate thousands and hundreds of thousands of eggs, and even during the lifetime of the queen.

From our first experiments we were led to believe that the drone progeny in such cases were more or less effected by the union. Take a black queen, one that has purely mated with an Italian drone, remove her early in the spring a distance of ten or twelve miles from Italian bees and suffer no queens to be reared from her, raise as many drones as you please and if you have young swarms of black bees you will find some of their progeny showing one yellow band, and

some of them two, and upon the drones a marked difference can easily be seen in the color, the Italian blood will make its appearance, Dzierzon and others notwithstanding, our experiments were made when we believe there were not another swarm of Italian bees in the State except our own.

We are quite confident, judging from physiological analogy, that nearly all the little variations that happen in this department, such as one and sometimes two yellow bands, are the results of such a cross or "*pairing*" of the two "races."

We have heard from theorists upon this subject, but we want the experimental part. The theories of scientists, medical as of others without facts are not at all reliable, and often lead to great errors in practice.

Give us statistics facts multiplied, which are worth more than all the elaborate, ingeniously written theories of the world.

The physiology of the mixing of bloods, as it is established among all practical breeders of horses, cattle, sheep, &c., is said not to apply to the honey-bee, as the former carrys their young, the blood of the mother actually circulates through and from it until given forth by birth. If the laws governing the purity of blood in such animals does not apply, may we not enquire as to the transmission of race among fowls, where the law seems to fit very well, as in both cases eggs are laid from which the race is perpetuated.

And we will venture the assertion that there cannot be found in America a practical fowl breeder that will tell you a cock of any variety running for a short time with his hens will forever spoil his stock, nearly all former chicks

will more or less vary from the true type, even though a pure cock be put with them afterwards.

We have seen a pure Spanish cock run only a few days with a pure light brahma hen, and after several litters of eggs were laid, and the setting of the hen, in her after laying the Spanish blood made its appearance in the chicks. This we have found to be true with other varieties. Now we admit that a queen like a fowl will lay without mating with a male, and they go still farther, their eggs will hatch, but what do they hatch, "imperfect" males. We say imperfect, why simply because the law of nature has not been complied with. The law does require the union of the two to make perfect natures laws.

Our experience proves to us that drones from either virgin queens or fertile workers are not virile, and cannot perpetuate their race. Admitting it to be a fact there is a sufficient quantity of the seminal fluid, "*blood*," placed in the sac or bag to impregnate all the eggs a queen may lay for a life time, does not prove but this blood can, or is taken up into the circulation of the queen and infused so far as to reflect upon her male posterity, our experience proves this to be a fact. We believe the blood of every living creature is more or less infused and passing continually through the system, and keeps and invigorates, and must necessarily be felt in the formation or make up of the offspring. We are aware that a few have taken exceptions to these principles, but we find nearly, if not quite all of its advocates, persons who have taken or relied upon some of the classic works while others have formed their opinion upon Dzierzon and his advocates, without experimenting to ascertain for them-

selves, when this subject has been broached, and not until then, as they are as silent as a grave yard, that one of them ever dare speak out. Why is this? Why do they not give to the world their experience in the matter, if they have any? And not keep back until some one has give to the world their experience.

And then the cry comes from some of them; Oh! dear, they have commenced again upon that knotty question! And then comes a string of the microscopial investigations, quoting Dzierzon, Vogel and others, this is sufficient proof they say no farther is wanted.

Now, for one, we are somewhat amused to see how still every bee-keeper has been upon this subject. The best and only reason we can give is that they have never experimented upon the matter, and of course prefer to keep silent, while here rests one of the most important matters connected with apiculture. Yes its a subject of great magnitude, and one that every bee-keeper should understand.

The question should be settled, and the way to settle it is to experiment, and never give up until you are satisfied from personal experience that you are correct. Take one lesson, and if you are not satisfied, take another and another, and give your experience to the world. This will benefit man—it will advance the cause.

If the Italian honey bee is what has been claimed for it; its superiority over the native bee, then it becomes necessary that we manage them properly to avoid the mixing of bloods, and to keep up a high standard of purity.

The reader will see here lays a point to be lookee after, and not cry out that knotty question.

Again we are led to ask the question who are those that cry knotty question? If we were to judge, perhaps we would be able to show you persons, some of them with but a limited knowledge of the honey bee, men that never tried an experiment in their life, at least some of them. Yet they know it all. What the people want is facts.

It needs no illustration to show the value of practical experiments; such have been of incalculable benefit to our country. Its results can be seen upon every hand; without it the invention of Fulton or Goodyear, the discoveries of Newton, the researches of Franklin or Morse would never have benefitted the world as they already have. It is by experiments, that we as a nation are what we are, with the energy and experiments of man.

The Iron Horse has spanned the continent and the Electric wire bound hemispheres together. With practical demonstrations we can prove all things, which let us do, and hold fast to that which is good.—[ED.]

For the Bee World.

Chips from Sweet Home.

D. D. PALMER.

This Centennial year, I have not as yet sent you any chips. We had many good ones, but lacked the time to gather and put in shape for your personal perusal.

To-day is cloudy and cool, our 175 hives are not likely to swarm, and we have 15 section boxes ready for use and 13 hives still empty, so we will try to pick a basket full for you and if not dry enough for present use save for next winters burning.

We put in our capacious cellar on November 29th, 106 hives realized out

of honey and beeswax \$5.30. February 20, 1876, we set out 106 hives all alive, one of which had the same disease, by which we had lost 200 hives and in 10 days it went the way of the rest of the diseased, I think I hear some one ask in what shape were your hives that they wintered so well? Part of them were well filled with honey and others were light some being outside combs and placed them in the center, some had a good deal of ventilation top and bottom and others but little. When I carried them out they appeared as strong and as heavy as when put in. How about springing all fine days we fed them flour of several kinds and our bees, like their owner, showed a decided preference for Graham flour. My diary for apiary (every apiarian should keep one,) say, April 10, '76, bees carry in pollen, have fed 150 pounds of flour. May 3, first drones flying, 102 hives. We use division boards in our hives, (a division board is made of the shape and a little larger than a frame,) for the purpose of making all strong and concentrating or confining all their heat, the first five days we examined all the hives, equalizing the honey and crowding the bees to the right hand side as you face the hive, leaving them as many combs as they could cover and no more, contracting the entrance and cutting off all upward ventilation occasionally we examined them, spreading the comb and inserting empty combs in proportion as they increased and the warmth of the weather. The Mississippi overflowed the bottoms and continued so for a long time, our bees would try to cross the water to a grove of willows a mile distant in spite of high winds and water, and for a while our bees decreased in numbers, although brood rearing was lively.

Our hives are set in rows running from North to South and from East to West. Each hive has a slate on the right hand side as you face the hive. I always open on this side, if the hive is not full but crowded, the bees will be on this side. Having regularity and order helps me to tend them. By passing among the hives, you will see 114 marked with "O," which means "boxes on." X on 13 means "slinging" and "comb building" explains itself. (for further use of slates see back numbers.) All comb builders are examined once in from 2 to 6 days, the comb being straightened and the surplus of drone comb cut out and kept for guides in the sections.

Oh! Yes, what about those sections? (See back numbers for particulars.) Yet we will add a few remarks there. Our hives are Langstroth pattern, those with double portico hold 32 sections, making 4 boxes, which when filled weigh 20 lbs. each, the single portico hives hold 24 sections. We have taken off a few section boxed and they were nice. They were readily separated with one comb in each frame or section.

We use glue to stick the combs in each, using more or less comb, depending upon the amount we had on hand.

We have lost 14 swarms, "gone where the wood-bine twineth. The slates, sections with nice guides and a soap stone pencil are our hobbies.

Dadant and Son are personal acquaintances of mine of whom I think there are none more honest, they are such men who would not stoop so low to humbug a bee-keeper, nor would they knowingly and willingly be humbugged by others.

Eliza, Illinois.

Subscribe for the BEE WORLD, the best bee-journal published in America.

For the Bee World.
Mr. McGaw's Letter.

MONMUTH, WARREN CO., ILL. }
August 18, 1876, }

Wm. J. Andrews, Columbia, Tenn.:

Dear Sir—Your letter of the 17th inst., came duly to hand. I have been so pressed with the care of 225 colonies of bees that I could not find time to answer it till now. I have been sick for a few days and unable to do anything, so put in my time writing. Dadant wrote me the 22d of June. I did not answer him till July 10th as I had a long letter to write. The queen in question I bought of Mrs Tupper, and she was over twenty-two days getting from Monmouth by way of Jerseyville. When I was trading queens in 1872 I had considerable correspondence with Mrs. Tupper about the queen. Dadant wrote me she was probably from the region of Piedmont, where the queens were dark. The light colored ones coming from Milan. From this queen I reared some queens that were darker than a good many black queens I have seen. Her daughters did not give my customers satisfaction. In May 1875 I bought a queen direct from Dadant. She was a very large queen and dark colored with stripes over her just like a good many black queens. She was superceded in the fall. Her daughters were dark colored but very prolific. I have always had very great difficulty in getting daughters from the imported stock that would produce three banded workers.

The imported queens themselves would not produce all three banded bees, yet their progeny were gentle and clustered close to the comb. I finally came to the conclusion that they came from Italy. The stocks that are giving

me my honey this season are the ones that have the daughters of these imported queens. I am done with the fancy yellow queens, though this season the daughters of these same imported queens have given several daughters of good color.

I have not given much attention to queen rearing this season, as most every one wants dollar queens, and in a good honey year dollar queens don't pay.

I see in your report of society doings you have a J. C. McGaw. I have never met but two persons of that name but what they belonged to my tribe. The McGaw's that I belong to came originally from Ireland—then North Carolina. I don't know whether Dadant intends publishing my letter or not.

Yours truly,

T. G. McGAW.

Although Mr. McGaw's letter may not have been written for publication, I have concluded it advisable in justice to all parties to forward it to you for publication. If I have taken an undue liberty with it I hope he will pardon us.

The experience he had with the bee procured as Mrs. Tupper coincides with our experience with the queen received of Mr. Dadant, except that both queens and workers were as *black* as the common *black* bees, but they were very prolific.

If it has been or can be shown that the dark colored bees are the best honey gatherers, is it not well the personal controversy between Mr. Dadant and myself did arise, as it has probably directed the attention of bee-keepers to the fact? And from this fact may not *some* good grow out of it?

Friend McGaw I showed your letter to Mr. J. C. McGaw and gave him your address, and he will write you. Our

McGaw's are also of Irish descent and have relatives living in Illinois.

W. M. J. ANDREWS.

Columbia, Tenn., August 22, 1876.

The above was sent to us for publication—ED.

For the BEE WORLD.

Answer to Dr. Larch's Attack.

R. M. ARGO.

My answer to Dr. Larch did not appear in the last No. for the season. I had written to the Dr. as I said in my "Answer Deferred" page 306, Sept. No. for an explanation of what he meant by the charge of \$3 still due him on the honey. I had no recollection of owing him a cent, but rather thought he owed me 13 cts. a trifle I never even think of.

The facts are these. I received a postal card from Dr. Larch dated Oct. 30th, '75, asking if I had the Light Brahmans, price of two cocks, &c. I had at that time more than I wanted to winter, and in order to reduce them I proposed to sell for a while, at \$5 per. trio, till I got them reduced.

I had read Dr. Larch's advertisement of honey for sale, and as I had sold out I wanted to trade for some, provided I got it as low as I noticed it advertised. I received a letter from Dr. Larch, dated Dec. 13th, saying he had shipped me a keg of honey, 57 lbs, at 12 cts.—\$7.12, keg 75 cts.—\$7.87 and to send him three Light Brahma cockerills. By this time I was already selling at \$7 and \$8 per. trio, \$3 per. single cockerill, and forgetting the promise made about six weeks before to let him have the trio at \$5 as he says. I shipped him the trio cockerills at \$8, Dec. 20th. The honey had not yet arrived. I needed the honey at that price whether

good or bad, as even bad honey is better for spring feeding than sugar syrup, and Dr. Larch well knows I made no complaint of it. I was satisfied with it and it would never have been known who I got it of, had he not told it himself, in his article page 114, March No. In a postal card received soon after he says. Chickens arrived in Columbia Dec. 22. Mrs. Larch is well pleased with them. They are not quite as light as ours, but they are good ones. As to their not being pure, as he says in his attack, I would refer him to Will Burnsides and J. P. Sandiper, poultry men of Lancaster, Ky., who visited my yards about the very time I shipped Dr. Larches. I sent a trio of the very same lot on the 28th, to J. R. Mars, also poultry dealer of Danville, Ky., Editor of *Advocate*, per. \$8.

On the receipt of Dr. Larch's letter with the explanation how it was about the \$3, I sent the \$3 immediately, and he returned 13 cts. saying it was only \$2.87. That the other two charges would stand, that he wrote I may have made the mistake honestly. I inferred from this that he may have written some apologies for the attack he had made on me, and waited to see what he had written, but not a word of such can I find in the Oct. No. just to hand.

The bee stand he complains of was shipped Feb. 13th, 1873, and on the following June I received a letter dated the 8th, speaking highly of them, as the best in his yard and the only ones with drones. If they were not pure, he ought to have said so now, or forever after have held his peace. Will any experienced bee man say this was not ample time to complain if all was not right? The queen of the stand I sent him was tested in Sept. both as to her queen and worker progeny. It is pos-

sible she could have been removed in Oct. but I don't think she was. Not a word of written complaint ever come from Dr. Larch to me, as I have all his letters and postal cards on the table now before me to prove it. Nor did I ever have the least warning of what he intended to do, till I read his attack on page 272, and with such surprise that I did not even know what he meant by it. In his letter of explanation he says if I had not persisted in underrating Missouri honey, he would not have written that article.

Now readers of the WORLD, did you so understand me as he does, as persisting in underrating Missouri honey. How could I do so when I had never seen any other sort of Missouri honey, except the fall flour of '62, and that Dr. Larch sent me of '75, both samples nearly just alike. But I must leave this to you and show that the very face of Dr. Larch's attack refutes itself.

This attack comes in a bad spirit, as any sensible person can see, and it comes just three and a half years from the time he got the the bees, and eight months from the time he got the fowls; and he believed I swindled him in the bees, he should have sent to some one else for the fowls. It is clear he did not believe I had swindled him, till he got mad at my honey article in the January No. of the BEE WOLRD, page 48, and thought he must revenge himself on the author of that article. If that article was bad, then why did Dr. Larch try to carry out the very principle or aim of that article, which was to find the different grades of honey from all sources in different climates and localities.

Does Dr. Larch assume that there is no difference in white clover honey gathered in any climate in the country.

If so then it was all nonsense to challenge me \$100 premium to show honey at the St. Louis fair this fall.

I noticed his challenge in almost every paper I took up during the summer, and he got the credit of being the originator, when the truth is he got it from the very article he condemns me for writing. I accepted the challenge, but could never hear from him since on that subject.

Dr. Larch's aim to show honey from every climate and locality of the United States at the St. Louis fair was a good one, to find the difference in the different species of honey in all climates. If I did not think it a good one, I would not have made the suggestion from which he has been trying to carry out.

Now here is the part of the attack that he says still stands against me. He purchased two stands to start with, one from Ohio and one from Argo, neither of which proved satisfactory. The one from Ohio was not prolific enough, and the one from Argo occasionally produced a bee nearly black. Her queens were not uniform in appearance and did not breed uniform. I thought that some had mated with black drones, but as soon as I began to rear queens from some of the best, I found their offspring impure; both workers and drones; and the only pure drones in the apiary were those of the old queen.

Now is there a man with a years experience with bees and a thimble full of brains that cannot see the Dr. hits himself square in the contradiction of the above article. He had but 8 stands when he got my stand all black but the two above, but how many stands he had when he began to rear queens as above I can't say. But do we not all know that stray bees will enter differ-

ent hives and are frequently allowed to do so by the sentinels, which could account for the *occasional black bee*. Also he says the only pure drones he had were from the old queen; which I say proves her pure. But Dr. Larch may hold to the *doctrine* that the impregnating of the queen does not effect her drone progeny. This has been discussed for years in the Bee Journals but never settled yet.

I hold that the impregnation of the queen does effect her drone progeny, and this is partly what ails Dr. Larch's queen; but the main course is they mated with impure drones from his own neighbors bees.

If I find a queen or a fowl or any thing I have purchased to be very unsatisfactory, I write to the party who sent it, stating my complaint, and if he does not answer in due time, I write again, and if still no answer I can then post him as a humbug or swindler, or if he does answer, but refuses to give satisfaction, I am then at liberty to post him in the journals—but not before. Dr. Larch nor any man living can say he ever made complaint to me by letter, and did not get satisfaction.

As to me being a careless breeder, I can give the Dr. a list of references who have got queens and full stocks of me from Canada to California and from Minnesota to Louisiana. Many flourishing apiaries, such as J H Brooks Columbus, Ind., and M. Pars, Pine Bluff Arkansas were started from my yard, as was also J. F. Montgomerys of Lincoln, Tenn.

I now give up the field to Dr. Larch, he can say what he pleases. I will trouble the readers of the BEE WORLD no more with a notice of what he says; begging pardon for exhausting their patience. I would never have written

this, had I not feared it might prejudice some who had never dealt with me from sending to me.

Lowell, Ky., Oct., 6th, 1876.

For the Bee World.

Scraps from Illinois.

WILL M. KELLOGG.

FRIEND MOON—From the looks of the last BEE WORLD I should say the typo had been off on a Centennial picnic and hadn't quite got the wool out of his eyes when he set the type. In my article page 323, 8th line from top, read *there* for *where*; 23d line from top read "and soon your new stocks," etc., in place of "as soon as your new stocks," etc. 8th line from bottom read *black bees* for *bee queens*. Last line of article read *bugs* instead of *bogs*.

We have had a cold wet Fall and very few days that our bees could fly, which in one way has been the saving of a good many of our bees, preventing them from going to the cider mills, which they do by the thousands on warm days. Have just returned from a two weeks stay at Benton's Bay on the Mississippi river. Went there with a friend to handle bees for T. G. McGaw who has been sick for some weeks and could not attend to them. The country is all sand, sand-burrs, fleas, "skeeters" and snakes in a wet season. But to offset all these there is thousands of acres of a plant called by the various names of bee palm, camphor weed and wild bergamot, which last name I believe is the right one. While it is in bloom, which is from July till frost, the bees get tons of honey from it.

Besides this they have golden rod, basswood or linn, willow, etc., in their proper seasons. If all goes well "Scraps from Illinois" will be written from the

Mississippi river next year. The honey from the wild bergamot is of a delicious flavor and very strong scent. In the evening in Summer, the scent is so strong that the bees have to leave the hive and board outside like those spoken of by Miss Saunders. Have just received (October 17) a 5 frame nucleus of bees with a beautiful yellow queen from Staples & Vaughan, Columbia, Tennessee. They should have been here early in September, but were directed wrong, but by good luck had just honey enough to last them through. Am thinking of applying for letters patent on a new bee hive—i. e. one of my ears. On October 7th, while opening a stock, a bee got on my neck, and before I could prevent it, crawled *into my ear clear out of sight*,

The noise of thunder or an express train is nothing to it. I managed to squeeze the stinger out of it before it got clear in without being stung, but mother said I was *white* when I came to the house. When I went to the doctor to have it removed he made me look through three stocks for him before he'd tend to *my* swarm. Wish I had not such big ears.

Oneida, Ill., Nov. 24, 1876.

After the articles are set up and proof taken they are then submitted to us to correct, which we do, and then the type is to correct all mistakes marked. It sometimes happens that they fail to do their duty, and the article goes to press with the mistakes uncorrected after being marked. We shall watch them a little closer hereafter and try and not make such mistakes.

—o—
Write your experience for the benefit of others. And also renew your suscription.

For the Bee World.

How I Manage Bees, No. 12—Races of Bees and their Improvement.

REV. M. MAHIN, D. D.

Bees, in different countries and climates have assumed different types. While their essential characteristics are always and everywhere the same, they present several varieties. It has only been my good fortune to make the acquaintance of two races—the common black bees of this country, and the Italians. These are not distinct species but different races or breeds of the same species. Hence it incorrect and unscientific to call the progeny of an Italian queen and a black, drone hybrids. They are no more hybrids than a half blood short horn calf is a hybrid. A hybrid is the offspring of two species. Mules are the only hybrids I have ever seen,

Between the Italian and black bees there are marked differences. There is a difference in size, the Italians being perceptibly larger. There is also a difference in color, the Italians having golden colored rings or bands. But the most striking difference, and that which adds greatly to the value of the Italian race, is in temper. Italian bees are generally much more peaceable than black bees. They are not so much inclined to attack any one passing about the hives, and when the hives are opened they are much more easily handled than the black race. When a comb is lifted out of a hive containing black bees, they generally become excited, and run to the lower edge of the comb, and many of them drop off; while Italian bees remain quiet, until they are returned to the hive. I have repeatedly had an Italian queen to continue depositing eggs while I held the

comb in my hands. She seemed no more excited than if she had been in the hive, and nothing unusual was taking place.

I think it is pretty well established that Italian bees will, under the same circumstances, gather more honey than black bees will; but my experience leads me to the conclusion that they are less disposed to build comb, and store honey in receptacles separated from the main hive. Hence if box honey is to be made by them, the boxes should be in close proximity to the brood chamber, and the opening should be large. Another important point of superiority is the success with which they repel the attacks of the bee-moth. Since I have had Italian bees I have seen very few worms about my hives. I have had, for experiment, one colony of black bees during a part of the past summer; and one day I took seven worms from one comb of that hive. Among the sixty-two hives, including *nuclei*, which I now have, I have seen but one worm in a comb this summer, except what was in that one hive, and that was in a weak nucleus.

I took up my pen to write especially about the improvement of bees. I believe that by judicious selection, they, as well as any other kind of stock, may be improved, and as to the Italians are better than black bees we should select them to begin with. In selecting the stock to breed from we can select the mothers, but not the fathers, of our bees. The fertilization of queens in confinement has never been made a success and I do not believe it ever will be. It is a very fortunate fact that while in most other living things offspring resemble the father more than the mother the opposite rule holds in regard to bees. The offspring of a

pure Italian queen impregnated by a black drone will ordinarily not differ greatly from pure Italian bees. There will be some difference in color, but scarcely any in size or shape. On the other hand a black queen that has mated with an Italian drone will produce bees, a majority of which will show no trace of Italian blood, while a few will be Italians in color, but not in shape and size, though the ones that have the Italian making will be found to be a little larger than the rest. These fact cannot have escaped the notice of any careful observer and they place within our reader the means of improving our bees by selecting the parent which will impress her own characteristics upon her progeny most strongly.

The road to improvement lies in the selection of to raise our queens from, whose progeny possess in the largest degree the qualities we wish to perpetuate and intensify. The characteristics to be sought are large size, light color, gentle disposition, and good working qualities. A large bee can carry more honey at a load than a small one, and saves time in going and returning. Color is of less importance and yet, as "a thing of beauty a joy forever" it is not to be overlooked. Other things being equal I would select the bees with the broadest golden bands. Temper is one of the prime qualities to be sought. And in this bees differ as much as anything else. There is a great difference in the temper of different colonies of black bees. And that the difference is inherited from the mother is evident from the fact that the colony does not lose its distinctive character while the queen lives. There is also a difference in the temper of Italian bees. While they are general-

ly more gentle than black bees, we sometimes find a colony that is as hard to manage as the blacks. I have a colony now that is apparently pure, being light colored and very uniform, but they are more difficult to manage than any half breed colony I have. They are not disposed to sting any one who goes about the hive. I can stand or sit by them as long as I please and they will not molest me; but they sting when the hive is opened.

As bees are kept for the honey they produce, productiveness is the one quality that should overshadow all others. And in this respect there is quite a difference between colonies, even sometimes between colonies that are closely related to each other. I have had two queens hatched from cells made in the same hive at the same time, and the colony of one has been largely productive, while the other has barely made a living; and the one had as good a start, and as fair a chance as the other.

Productiveness is, without doubt, in some measure transmissible, and by selecting the stocks that are most prosperous as the stocks from which to raise queens, the productiveness of our apiaries can be increased. This subject is certainly worth the attention of bee-keepers everywhere.

New Castle. Ind. Oct. 4th, 1876.

For the Bee World.
Hybrid Imported Bees.

C. H. DADANT.

In the October number of the BEE WORLD friend Argo narrates his experience with imported bees, and it seems that never has he seen an imported queen worth keeping. He has imported bees himself; they were impure, lay-

ing workers with one, two and three bands.

Now my experience and that of at least three hundred bee keepers, to whom we have sold imported queens, are quite different.

I have visited the apiaries of the most noted breeders of Italy. I have seen, besides, some thousand colonies in upper Italy. I have also received queens from different breeders from Italy, and I have yet to see a worker with one and two bands; all workers showed three bands when full of honey.

Will friend Argo permit me one question? If bees in Italy are hybrids where are we to look for pure Italian bees?

Of course hybrid means offspring of two different kinds, or it means nothing. Now we know that the yellow bee existed already in Italy at the time of Virgil, 2,000 years ago.

Glowing with yellow scales and dazzling hue, His body marked with golden bands we view.

I don't know from whom is this translation in verses. I find it in the *American Bee Journal*.

Even in admitting that some two thousand years ago there were two kinds of bees in Italy, it would have been impossible for them not to melt in one another as to become a distinct kind and no more a hybrid.

All our pure races of animals produced by hybridism became fixed races in far less than two thousand years.

But to return to the bees imported by friend Argo. I am inclined to think that he received his imported bees from Ed. Uhle, who sent bees in this country. Ed. Uhle once habited Italy; he went to Tyrol where he had as much to contend with black bees as we have in this country; all the bee-keepers were dissatisfied with his bees. Now friend

Argo opposes the window test. Yet there cannot be a better test.

In what consists the difference between black and Italian workers? In this, that the three first rings of the common workers are: dark? Yes! and *Opaque*—while the three first rings of the Italian workers are of some kind of yellow—and *transparent*. Therefore if the workers have the three first rings transparent they are pure.

If workers, on a window, show but one or two transparent rings they are not pure. I mean when the rings are extended; for, as you cannot see the rings of a spy glass when it is shut up, so you cannot see the transparency of the rings of a bee, if these rings are driven in one another.

One more question: How is it that even the lightest colored bees look darker in the fall and winter than in spring? They look so dark, at times, that often bee-keepers have feared to had the queen replaced. It is because the first rings, being transparent, are darkened by the dark honey gathered on fall flowers. A glass jar of dark honey is dark; a glass jar of clover honey is light colored. For bees the same as in jars, the transparent vessel takes its color from the contents.

You cannot make a yellow worker from a common bee, but you can make your brightest Italian workers look as black as the darkest bees by feeding them with dark honey. Mix a little lampblack with honey and feed a few light colored bees with it, your Italian bees will look black.

Therefore the transparency of the three first rings is a better test than light color, for the color can vary according to the contents of the honey sack.

Very often in looking in a pure hive

you see some young bees with their abdomen fully extended, which seem nearly as dark as common bees. Do not pronounce these young bees hybrids, for their dark color comes from the dark pollen and honey which fill their abdomen. Let these young workers become honey gatherers and they will be as light as their sisters.

I cannot insist too strongly on this: the difference between the looks of common and Italian bees consists in the transparency, which does not exist in one kind and exists in the other, and the window test is the only reliable.

Hamilton, Illinois.

For the BEE WORLD.
Weather Notes for Oct., 1876.

Taken between 7 and 8 o'clock, a. m.

WM. J. ANDREWS.

Day	Wind	Thermometer	Barometer	Weather.
1	N.	52	Rising	Cloudy; rain at noon.
2	N.	50	"	Clear.
3	S. W.	46	R.	Clear.
4	S. W.	48	S.	Clear.
5	N.	62	S.	Rain.
6	S.	56	F.	Rain.
7	S. W.	62	F.	Rain.
8	N.	54	R.	Clear.
9	N.	54	R.	Clear.
10	N.	50	R.	Clear.
11	N.	54	F.	Clear.
12	N.	54	R.	Clear.
13	N.	50	R.	Clear.
14	N. W.	56	R.	Clear.
15	N.	46	R.	Clear.
16	N.	40	R.	Clear.
17	N.	46	F.	Clear.
18	N.	42	F.	Clear.
19	S.	62	F.	Cloudy.
20	S.	70	F.	Cloudy.
21	N. W.	66	F.	Rain.
22	S.	74	F.	Rain.
23	N. W.	62	F.	Cloudy.
24	S. W.	54	R.	Clear.
25	N. W.	50	R.	Clear.
26	N. W.	48	R.	Clear.
27	S.	52	R.	Clear.
28	S.	64	R.	Clear.
29	S.	68	F.	Cloudy.
30	S.	68	F.	Clear.
31	S.	62	R.	Clear.

Columbia, Tenn., October, 1876.

For the Bee World.
Stray Thoughts.

J. B. PARKER.

FRIEND MOON:—Having read the September number of BEE WORLD I have concluded to give you a few stray thoughts for your next number.

I will first notice some of the many excellent articles in the last number of the the WORLD.

I think Dr. Brown has given some timely suggestions for working among bees at night.

There are times when honey is coming in rather slowly and bees are very cross and disposed to rob, that it is much better to extract, divide, exchange frames, &c., of moonlight nights than during the day. If stings hurt every one as badly as they do me, they would be willing to do most any way to escape them.

In my own article, page 293, you make me say an impossibility, in stating that friend Wemyss had not had a good year in the 57 that he has kept bees. Now should he see that article or statement he might not think that I was not a good hand at giving reports and that I must think him quite old. It should read 6 or 7 years.

The queen breeder that I spoke of has given me entire satisfaction, so I have no further charges against him, believing him to be an honest dealer and a gentleman. Hope the journals will heed the suggestions of friend Andrews relating the Centennial or rather the Bee-Keeper's Association in October. If possible I expect to be there and would be glad to meet all you brother bee-keepers. I know of nothing that would afford me more pleasure. W. J. Andrews uttered my sentiments exactly in speaking of the snit between

Gillespie and Montgomery. I too have tried foundations and my experience is the same as those of the September number. I will say that I find but little trouble to fasten the foundations with wax. If one will keep the wax warm and use a small brush I think it will do better than glue.

I tried friend Mahin's plan of caging cells before removing the old queen, but I could not succeed at all, and I thought circumstances quite favorable.

I will now say something of my own bees, &c. Bees have done but little in this locality for some time, but they have commenced work again with seemingly redoubled energy. I think our fall crop of honey will be good if we have no drawbacks from now.

Allow me here to say to your readers to be careful with fire around their bees. I to-day was examining some hives and after closing them up was preparing to go up town, it occurred to me that I would look over my bees again before I left to see that every thing was all right. When behold, to my astonishment, the smoke was just rolling from one hive. It was but a moments work to dash a bucket of water over it and put the fire out. I had carelessly blown a spark of fire on a quilt (I use quilts on all my hives) and it had caught on fire. Had I not noticed them for half an hour or more I would have had a mess. Not only would the bees have been burned, but the honey would have run around for the other bees to get, thereby causing a general robbing spell among them in all probability. I repeat, be careful. It is a good plan to see your hives a few minutes after you have been in them.

I see that friend Andrews can't tell me much about Mountain Laurel, hope some of your readers will. I asked the

same question through the WORLD last year without any answer. Now I feel confident that you have some readers that know something of Laurel, its qualities, effects, &c., and I will consider it a favor for any of them to inform me on the subject. Don't let me get no answer as I did last year.

Goldsboro, N. C., Aug. 30, '76.

For the Bee World.
Two Queens in a Hive.

G. B. PETERS.

I have been an old fashioned bee-keeper for forty years and while I am aware "that it is hard to learn old dogs new tricks" I claim to readily convinced by facts and also an unbeliever in every thing that has not reason to sustain it. I have long known there were *sometimes* two, not more, mature fertile queen in one hive. I have always observed it to occur in a very tall, old fashioned box hive, in hives with boxes alone or in upper framed hives or in long gums from trees. The first time I ever met with a dual royalty was in a long maple, the segment of the tree ten feet long, was sawn out and placed upright. After being carried home and placed as it originally stood, it sent out a large swarm in May. It did not then swarm again until 20th June. On the 19th June, I thought to cut off half the gum and fit a top and honey boxes. I carefully cut off two feet upper part finding the cavity only about six inches in diameter and eight feet long before the separation, split open the upper end, parallel with the comb and from the jar I suppose a queen began piping loud and rapidly by the time I found her she was so covered with honey her sound grew very weak but continued. Be-

lieving her to be the only queen in the hive I placed her back into the lower part and put on a top with honey boxes, a little after sun down. I heard the piping occasionally that night. Next day at 10 o'clock a large swarm issued and were hived. Both old and new hives done well. I then concluded that the queen for the second swarm in May had become fatigued and in combats with other new hatched queens had escaped to the upper part of hive instead of swarming out. She then remained and laid eggs. The queen in lower part did the same, as I examined the lower end of the old gum and found brood, which was also the case in one sheet of comb in the upper story. I have in many instances since found a queen in the honey boxes which I removed. In fact it is conclusive evidence where bees refuse to leave a honey box one queen is in it. I have generally used boxes holding 10 to 15 pounds of honey, and I suppose if I used small boxes from 2 to 5 pounds I would seldom find a queen in them. I have found them in the King hive and also Langstroth's and the tall old fashioned box hive.

I have sometimes killed three and the hive exhibited no loss of a queen. I sometimes returned them and on three occasions found a dead queen near the hive next day, and on one other occasion besides the maple swarm had a swarm to follow in a few hours. I am now convinced two queens do sometimes "dwell together" but not "in unity;" that they occupy distinct parts of a long or complicated hive: that the worker, have some regency in preventing a mortal combat between queens, and that if forced to occupy approximate localities one will either lead off a swarm or one fall victim to the sting of the other. I believe, notwithstanding these "facts

that queens in an uniformly constructed square or triangle hive of a space of 2,010 cubic inches will not tolerate a rival queen, and the instances above referred to are the exceptions to the general rule.

Council Bend, Arkansas.

For the Bee World.

Scraps from Missouri.

E. C. L. LARCH.

Yesterday I received \$3.00 enclosed from R. M. Argo, with a note asking me to withdraw the charges in August number. He says that he had forgotten the contract, hence the failure to send the money. Of course I accept the apology and hope that he meant nothing wrong as to the queen and chicks. I can say nothing less than I said before as to the chicks. I hesitated about pronouncing them impure (thinking they might possibly be a darker strain than usual) until I saw their progeny, then I was convinced that they were impure. All my old stock are pure.

None of these charges would have appeared in print had I not believed the interest of bee-keepers demanded it, and being satisfied of unfair dealing on the part of Mr. Argo. It is an undeniable fact that he stated that he had sold off his honey too closely and wanted some honey for his own table, but it now turns out that he was buying to sell again. It will seem clear to every candid reader that the object was to make a reputation for *his* honey at the expense of other sections of country that produce as good honey as his. This attack of Missouri honey is no personal matter as it includes a large scope of country and contains a considerable number of Apiaries, and of course he

may expect me to defend them. Mr. Argo should remember that I am one among a large number of bee-keepers, and what is an offence to one may be an offence to many others. I have no queens or chicks for sale and do not advertise for sale, and do not expect to sell except for recompmodation. I have never yet sold a queen. My interest is to get the bees to gather all the honey they can for the home market. I do not ship honey to distant parties unless requested to do so. I hope Mr. Argo will not continue to drag me into this disagreeable controversy and let us devote our time to bees and other legitimate subjects. I hope Mr. Argo was honestly deceived in the queen and think that he probably bred from impure fowls supposing they were pure.

I will now turn to the \$100 prize if Mr. Argo will turn to my first article BEE WORLD he will see who it is as dull as a goose, for I distinctly stated that my offer must be accepted by the 1st of May which he did not do, but claimed as an excuse that the journal was a month behind time. I am inclined to think that was only a dodge as mine came to hand in due time and I have received every number since it was published, and have no cause to complain. In my second offer I invited competition from all parts of the world and all kinds of honey. As yet I have received no response except from Mr. Nesbit and Mr. Argo. Mr. Argo accepted according to Mr. Nesbit's proposition that he would be one of 20 to make up the prize which is virtually no acceptance until the twenty names are procured, which he knew was not likely unless some one would accept and make it a sure thing, allowing as many more to accept as saw fit by paying their proportion. This I consider only as a

dodge. I have not yet received notice from any one except through the BEE WORLD—not even a postal—so that of course no preparations have been made. My honey will be there and hope that Mr. Argo will have his there and compete for the premium offered by the St. Louis fair, unless we shall succeed in making up the \$100 prize which I hope may yet be accomplished.

Ashland, Boone Co., Mo., Sept. 2.

For the Bee World.
Fresh Water for Bees.

J. M. HARRIS.

EDITOR BEE WORLD:—I am glad to know that the WORLD can appear in good time, the September number a little ahead of time. No objection.

About the first of August our bees turned their attention to gathering honey, and the cards are now so full that the queens must be idle a good portion of their time. I have no extractor and so get but little honey, as they have as yet refused to work in boxes.

My Italian, bought of Mr. Devitte, proves to be all right, i. e. Mr. D. says so, and I rely on his judgment. The reason why we were doubtful of her was because she was taken from a hive which at that time had another, (the old one) which Mr. Devitte discovered a day or two after. He accounts for there being two queens in the same hive by supposing that the bees knew the old one would not live much longer, or having some other objection had prepared a young one, for the old queen was missing in a few days.

I have a queen from my Italian hatched three days ago, but I see no drones and she may prove worthless, so that I may have to unite them with another or buy a fertile queen.

The above was written about eight

days ago. At this time the honey harvest seems to be over and the bees are idle.

Besides the young queen referred to above, I have another young Italian which has been laying about a month, but having no Italian drones at the proper time she produces hybrids. I do not think that our section is good for bees. At this season of the year we have but few running streams contiguous, and hence our bees suffer for fresh water. I observe that when fresh water is drawn at the well the bees seem to be very glad. We keep clear water standing near all the time, but they seem to pay but little attention to it but rush to the bucket as soon as drawn from the well. So I think that bees, in order to do well, should have free access to running water, and also to timbered lands.

Cedartown, Ga., Sept. 11, '76.

For the BEE WORLD.
Dots from California.

HENRY C. HICKS.

A. F. Moon, Dear Friend:—Our honey season is now over and generally it was rather a poor one indeed. This country not producing more than half a crop, the quality however was good, in fact much better than last season. Our best honey is made from what we call the "Tangle Foot" and Sage, which are our two earliest flowers. And the months of April and May being cold indeed, for this climate our bees did very little by way of gathering honey. The quality of the honey made in this country is by far the best made in the State. And in fact has finer flavor of any that has come under my observation. The bee interest now predominates, there being about twenty thou-

sand stands of bees in the country. Some single apiarians having as high as two thousand hives.

The yield this year will probably not exceed fifty pounds to the hive. Tho' in good seasons from one hundred to one hundred and fifty pounds are made, I mean box honey, as little or none of any other kind is taken here. Extractors are hardly known. The Harbison hive is the great hive of the country almost every apiary using them to the exclusive of every other. Harbison himself lives here and is the great luminary of the BEE WORLD, whose energy and indomitable perseverance over difficulties before, which inferior minds would have given up. He has pushed the business to a complete success, and now sits enthroned in the respect of his fellow citizen. Reserving that homage due to a great mind that has known no such word as "fail." I will as soon as convenient write you in full of the bee interest on the pacific.

San Pasquall, Po., San Diego, Cal.

—
For the Bee World.
Dual Royalty.

GEO. B. PETERS.

EDITOR of BEE WORLD:—In a former article I demonstrated conclusively (to my mind at least) that two queens were under some circumstances found in one hive. Among those the following circumstances are: A very lengthy hive; large honey boxes and a two story frame hive.

Since I penned that article, I have had actual and ocular proof in the following measure: I procured from Staples & Vaughn, of Columbia, Tenn., a beautiful Italian queen, though I thought she was rather under size. I have a very strong colony in the King

movable frame hive, with two honey boxes, with a capacity of eight pounds each. They were the third set of boxes for that colony this year. I displaced the honey and when the bees had all returned to the hive I (having glass boxes I could know the fact) proceeded with my assistant to examine frame by frame with an immense force of bees, and we went through the whole hive and found no queen—no queen cell but one and that was known away a little, but presented the appearance of having just given vent to a young queen. Too fresh and complete was the cell that my assistant noticed the fact as well as myself. I placed each frame in a box the size of the hive so that when, though there was not a bee to be seen on the frames, but lay in a large bulk at the bottom of the hive. I placed a white table cloth down and emptied the bees on it. Before examining that pile of bees, I thought to inspect the inside of the empty hive and in the end from which I had poured the bees, my assistant found the queen, his eyes being better than mine. I destroyed her, but showed her to some juveniles who had never seen the mother bee. After such diligent search to find one queen, I did not think there was another one in the same hive, although the fully formed queen cell lay before me, having cut it out, I placed all the frames full of honey and brood back in sight, I returned the bees to their home and all went in speedily.

After waiting six hours I introduced the Italian as I usually do by suspending the cage with a wire to the center of the hive, between two frames left open for the purpose.

Twenty-four hours after, I hoisted the cage and found all the Italians in the cage, except the queen herself and

and two others dead, and the black bees that hung around the cage were ill and more threatening than they were when I had taken the hive all to pieces. I felt uneasy for the queen but I replaced her in the hive. After another twenty-four hours I examined the cage, found the queen and the two live Italians all right, the bees not only quiet but I had difficulty in brushing them from the cage ten feet from the hive—they seemed determined to cluster around the cage. I placed two strips of writing paper over the aperture in the cage left by removing the sponge and returned the cage in the hive. Before the cage had descended to its place the bees clustered on it with a rush which satisfied me all was right. After 12 hours I again examined the cage. A mass of bees clung to it, and they had commenced a comb an inch in length from under side of cage. Having now no doubt of the kindly feeling towards the queen, I took off the papers and substituted a strip of capping wax shaved off a piece of honey and returned the cage to the hive. Did not examine it for ten days—on taking off the cover there lay six dead black bees and one of the Italians on top of the frames which are closed except straps for honey boxes. This awakened my fears for the queen, but as the bees were working well and content—carrying pollen and honey freely. I hoped and thought all was well with the queen. I swept the ground clean before the hive in order to examine any dead bees. The second day after the last examination, making five days from introduction, I found my queen lying dead on the ground. I applied my magnifying glass and could find no marks of violence on her except one wing was scooped out half way. The dead Italian

found on the frame was as badly mutilated as ever a soldier was on the battle field. I was exceedingly anxious to have that queen in so strong a colony. Now I conjectured the possibility of fertile workers, then I thought of that fresh queen cell and two queens. I returned the glass boxes only half filled as they were when taken off and made hourly examination of boxes and hive. The bees were doing well and very active. About a week after in the top of the Italian hive I saw in one of my examinations a black queen in one of the boxes. I instantly took the box in a dark room with one window and made all the bees leave the box and of course they settled on the window, when lo and behold there was another black queen and as large and as fine as you ever saw. Having no other Italian queen I returned her to the hive. This settles that fact of Dual Royalty, and I am now induced to doubt the whole story of fertile workers.

You can account for a queen laying drone eggs alone, if she does under some circumstances. Why invoke the aid of a fertile worker to do that which she is known to do sometimes, and I would discard the idea altogether if the thing was not maintained by men of character who cannot be called either fools or knaves, and whose evidence as men of scientific attainments is *prima facia* in the premises.

Council Bend, Arkansas.

—o—
Our exchange list has now increased to such a number that we are compelled to withdraw them, this we are sorry to do, but we cannot get time to read them. We glance over them for bee-items, in some of them we find they appreciate the articles in the journal, and copy and give credit. Not one in ten has anything on bee culture.



For the Bee World.
Sundries from Sunny Side Southern Mississippi.

ANNA SAUNDERS.

I am the unfortunate lady who wished to make peace but made trouble instead. I was not reading the controversy, but thought it was a tested queen and wrote about the exceeding difficulty of being always right in testing, and assured Mr. A. that no feeling of personal regard influenced me in the matter and thoughtlessly spoke of a provoking transaction between the gentleman and myself. It was so. I engaged two queens in the fall, to be sure to have them *regularly*. Explained that I lived out of the world and our mails were irregular and so I would have to be notified earlier than usual. I never thought of their coming any way but by mail, and when I sent the money I said something showing it—thought I had before. So Mr. D. wrote that he would send them by express.

There was no express office nearer than New Orleans, and I knew they would be much safer by mail. So I wrote him to send them by mail, positively. But wrote to Hamlin & Benton to know if they could supply me in case he positively would not send them by mail. Frank Benton immediately replied that on a certain day they would be sent by the same mail.

I got a letter from Mr. D. saying on the same day he would ship them. I took a cry, thinking Frank Benton would have to wait for his money, but on looking further among my letters I found another from Mr. D. declining 90 cts. I wrote to him to remit the money to F. B.

All this correspondence took up so much time, that is was the 4th of July before I got the queens and the 6th before I could introduce them. The difference in value between early and late queens is much greater here than with him and it was natural to be provoked, though I doubt if he had any idea how much trouble and vexation the matter gave me. I think my remark to Mr. A. was "when the time came." (early in the spring,) "I had neither queens nor money." If I had had the money in my own hands I would have sent it immediately to F. B. Mr. D's remarks in the August BEE WORLD decided me to explain the matter here. I take great harm to myself for my thoughtlessness in writing as I did to Mr. A.

COLUMBIA, TENN., Aug. 22, 1876.

The above reached us this evening, accompanied with a private note from which we extract as follows: I send you the enclosed article, in the advice of my nephew, instead of direct to Mr. Moon as he declines to publish anything relating to it from outsiders and you may not care to have it published at all."

Miss Anna, you are correct. We do not care whether your explanation was published or not, and would far prefer to rest under Mr. Dadant's charge of being a "*voluntary slander*"-er than to drag a lady into a personal controversy. Nor would we now do so, were it not a matter between Mr. D. and myself is about to be amicably settled, and for a still higher consideration, viz.: It reflects great credit on you as a lady.

W. J. A.

Notes and Querries.

BY

W M. J. ANDREWS.

MEMPHIS, TENN., Oct. 26th '76.

EDITOR BEE WORLD:—Enclosed please find postoffice order for Volume One of the BEE WORLD and binder. Not a good season for bees. We are not discouraged, done better than we Novices had a right to expect. Apprentices have to pay for their trade.

I saw a sight last August that ought to encourage us all, cripples in particular. It was a bee without wings, going from bloom to bloom of the cucumber and gathered a load of pollen and I think some honey and started for its hive about two rods off. Our spring was very poor, the summer fair and fall very poor.

I had a section of honey from Harbison & Dawling yesterday. It came from California, via N. Y.

Messrs. Thurber & Co., out of two boxes only one section was broken and leaked, was very pretty and perhaps as good as our clover to some who liked it. If some of our apiaculturists could have seen it they might try to put theirs up a little better and find the market stronger. The "BEE WORLD" and I are great friends.

Yours, &c.,

EMMA E. GETCHELL.

We too have seen crippled bees work upon flowers, but only when placed there. To see them seeking for a livelyhood for themselves when deprived of their wings, is another great evidence of their industry and a lesson to man. And we might add:

The sight you saw of the crippled bee,
That crawled upon the ground;
To get a living by such toil,
In man will not be found.

KENNER, LA., Oct. 8th, 1876

MR. EDITOR:—Our bees are working finely on the Golden Rod which is now in bloom and also on the Tangle Vine which yields abundance of honey of fine flavor and of a good clear color, it being far superior to the Golden Rod honey, and sells well in glass boxes. The poorest honey we have here is the Tea Weed and Knuckle Bur, which is very bitter and black, nor saleable for market. At present our bees are doing well, and all in good condition for winter.

E. STAHL.

MR. EDITOR:—Our bees have not made any surplus honey since harvest and some barely made enough to live on. Season poor.

D. A. PIKE.

Smithsburg, Md.

My bees have been filling up their hives with honey since the last two weeks. It is a hard matter for me to find empty frames to give the queens sufficient room to deposit their eggs.

L. LINDSBY, JR.

Waterloo, La.

Mr. Hall living in the North East part of this county informs us that for three weeks past he never saw such honey dew in his life. The bees were gathering and storing rapidly. The honey dew can be seen upon the trees and on the leaves on the ground.

Dr. J. P. H. Brown of Augusta, Ga., offers a tested queen, bred from imported mother, to the person sending the largest number of subscribers to the BEE WORLD between now and the first of May 1877. Queen to be sent next July, before presentation of certificate certifying to the number of subscribers by the publisher of the WORD.



MOON'S BEE WORLD

A. F. MOON & CO.,
ROME, GEORGIA.
NOVEMBER, 1876

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To Our Patrons.

The present number will complete the third volume of the BEE WORLD. It is a source of gratification to us to know that the BEE WORLD has been a welcome visitor to many households.

We have positive assurance that it has done much to advance the cause of apiculture and to increase the interest throughout the land.

When we first announced the publication of the journal, which we promised at two dollars per year, some thought the price too high and many concluded it could not be sustained, when the fact was known that every number cost us ten cents per. copy, they could see that such a journal could not be published for less money, and some predicted that in order to make it a success we would be compelled to make it an advertising medium for other branches of industry. That it has not failed, the present issue amply testifies; that its columns have never been sullied by any "axe grinding" articles, our readers can determine for themselves. And as it has been in the past, so it will be in the future. It is a well known fact that all publications receive their main support from their advertising columns, that the subscription price, seldom if ever pays any income. A large portion of our advertisements are from our correspondents, which we have made no charge or received no aid in that way, except their valuable communications, which has been thankfully received.

While it is true we have been compelled to publish advertisements of another character to aid us in the publication of the journal, as we must acknowledge from this has come our main support; during the year past we have received many urgent requests to enlarge the journal.

It is not improbable, however, that if we receive sufficient encouragement, we may add another form to its pages. We must remind our readers, however, that if they wish to see the "BEE WORLD" prosper and improve, they

must exert themselves in its behalf. We are thankful for past favors and it is with no slight feeling of pride that we make these acknowledgements.

The "BEE WORLD" goes out to its patrons and friends with a heart greeting. And as the present number now closes Vol. three, let us consider this a period of retrospection and resolve with us all. It is a point of time almost universally chosen for the inauguration of change and greater step in progress.

What we will do next year, has been a subject of anxious thought, if our readers are liberal in their efforts to extend our circulation, so will you be rewarded in the enhanced value of the journal. With a sweet mingling of gratitude and hope we wish you all abundant success in your laudible enterprise apiculture.

Bees carried in pollen on the first of the month, but no honey.

There will be but few bees in Northern Georgia, that will have sufficient stores to carry them through the winter, they should be fed and not allowed to starve.

Will bee-keeping pay—we advise those asking such questions to read Dr. Larch's report in this number. Also many other practical bee-keepers of the country.

To our Subscribers.

Nearly four hundred of our subscribers whose time of subscription expires with the present number, Volume 4, will commence January 1st 1877. We hope to find all of our old subscribers names, together with many new ones on our new books. Friends will you

renew at once, that we may know how many to strike off, and thereby aid us in sustaining a bee journal in the Sunny South.

Advertisements.

During the past season we have received advertisements for insertion, saying they would send the money soon, that soon never came and that trust system has played out. Bills for advertisements can be paid monthly, or in advance or they will receive no notice.

Poor health during the past summer has prevented us from giving the journal the usual attention that we would like to have done. Yet we have tried to make it as readable and as interesting as possible under the circumstances, our friends will pardon for all mistakes.

A number of communications reached us too late for insertion in this number, they will not lose interest by brief delay.

From the press we notice that Wm. J. Andrews was elected President of our National Bee-Keepers' Association held at Philadelphia, an honor worthily bestowed, with his untiring energy. We hope the interest of that Association may grow with the growth of the country and the interest it represents. May it be the promoter of great good, of the right, the true, the real and the practical. We further hope that it may be the exposer of error, of the false and impracticable. With its present officers we may look forward to the prosperity of the Association. We are sorry that the next meeting was not more centrally located.

Elected President.

At the late meeting of the National Bee-Keepers' Society of the United States, held at Philadelphia, Wm. J. Andrews, Esq., of Columbia, Tennessee, was elected president, an honor well merited and worthily bestowed on one of the liveliest bee men and enterprising, thorough business men to be found anywhere.—*Rural Sun, Nashville, Tennessee.*

A high honor was conferred last week at Philadelphia, upon our enterprising friend, Capt. W. J. Andrews, by his being made President of the National Bee-Keepers' Society. He is probably the best aparian in the country, and no man has been more successful in cultivating bees than he. It is one of the most instructive studies of nature, we not only learn how they employ each busy hour, but their system of labor, their unequalled mechanical skill, and their complete Republican form of government. No man in America is more competent or has done more towards improving bee culture than W. J. Andrews.—*Columbia Journal.*

PERSONAL.—Mr. Andrews attended the meeting of the United States Bee-Keepers' Association, and very unexpectedly to himself was elected President of it. This is but a simple recognition of his ability and services, however, and no doubt it was done because the bee men of the Union had learned to know and recognize his ability through the various bee journals throughout the United States, to nearly all of which he contributes leading articles. He is a man of great force of character, and makes himself felt in whatever he touches.—*Herald and Mail.*

Question by G. H. Hayes.

Mr. Editor, one question please answer. What are the principle requisites to successful bee-keeping?

We answer, the man, the hive, the locality and above all the season.

1st. The man must know how to manage bees; he must have a taste for the business.

2d. The hive to use must be one of the simplest of the movable frames.

3d. He must locate where honey plants are a natural growth.

4th. Our main dependence is upon the season. We may be one of the most practical bee keepers, and have the best hive in use, and located where honey plants abound, if the season be too wet or too dry our harvest is a failure.

Miss. Saunders article which appeared in this number was received some time ago, and should have appeared before, but we trust it will be welcomed now. We hope to receive more as good.

Bear in mind, that when your subscription expires, the BEE WORLD will be discontinued.

Our appearance so late with this number was the delay of paper.

Publishers Department.**Advertising Rates.**

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Fourth page of cover, double rates. Third page of cover, 50 per cent, added to rates. BEE WORLD included in all advertisements of eight dollars and over. No advertisements continued longer than ordered. Bills of regular advertisers payable quarterly; transient in advance. Address all communications to BEE WORLD.

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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.

BIND THE BEE WORLD.

The EMMERSON BINDER is neat and durable. Every subscriber should have one. We will send, on receipt of \$2.50, the BEE WORLD for 1876, and one Binder. Price of Binder alone 75 cents. A. F. MOON & CO., Rome, Ga.

40 COLONIES
Italian Bees for Sale.

All have tested queens (suitable to breed from) bred from imported mothers. Stock not surpassed in Purity by any in America. All orders must be received before the first of January. Price from \$8 to \$13 per colony.

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Pure Italian Queens for 1876.

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

W. P. HENDERSON,
Murfreesboro, Tenn.,

**BARNES' PATENT
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CIRCULAR and SCROLL SAW. Hand, Circular Rip Saws for general heavy and light riping. Lathe, &c. These machines are especially adapted to HIVE MAKING. It will pay every bee-keeper to send for our 48 page Illustrated catalogue.

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We receive Italian bees from Italy every two weeks during the summer.

We sell Queens as follows:

*Imported Queens.....\$10.
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We will refund the money to all those of our patrons who are not satisfied with our queens after two months of trial, on the condition that they will send back the queen with an affidavit establishing that she is the same queen they have received from us.

We can furnish references among the most noted bee-keepers of the world, both in America and Europe.

We guarantee the safe arrival our queens.

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ITALIAN QUEENS
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Full Colonies for 1876.**

Tested Queens in nucleus colonies sent out in February and March. All Queens bred from Imported mothers. Full colonies, hives, the best honey extractor, improved smoker, feeder, etc. 50c sale.

IMPORTED QUEENS.

"This is to certify that Dr. J. P. H. Brown receives Italian Queen Bees through this office, imported direct from Italy.

C. H. BUCKLEY,
Agent So. Express Co.
Augusta, Ga., Oct. 11, 1876.

In order to supply the wants of my customers, I have made arrangements this season to receive every few weeks, Queens from the districts in Italy where the finest type of the Ligurian or Italian bee is found. Send for circular to

Dr. J. P. H. BROWN,
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