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National Bee Journal.

DEVOTED TO THE CULTURE OF THE HONEY-BEE.

Vol. III. FEBRUARY 15, 1872.

No. 4.

[For the National Bee Journal. CORRECTION.

Messrs. Editors: - Your paper came to St. Johnsville, N. Y., directed to Rev. M. Quinby. I wish to correct a few mistakes. First. I have no claim to reverence any more than I have to that keep-vour-distance sort of expression alluded to on page 23 of your journal. My brother told me once that if I wanted to pass for somebody I "must keep folks away from my home, for just as sure as I allowed them to visit me the illusion would be gone." I expect I have lost just as much by showing myself at that convention. Then, again, I see that E. Quinby, St. Johnsville, is reported as President of the North American Bee Keepers' Association. Now I am acquainted with every Quinby in this town. which is just one, and there is no E about his name any more than the Rev. If E. Quinby means M. Quinby, and that boy is me. I would say that I was born a Quaker, and educated in that school to call men by their plain names, leaving off all titles, even the Mr. was thought unnecessary. If M. Quinby is the man, let him be addressed as M. Quinby, and nothing more.

The action of the Convention that pleased me most was the uniting of the two rival Associations, not for the purpose, as Mr. Wagner fears, of running the meetings in the interest of designing parties, with axes to grind, but to break up all such selfish interests. Very likely some such designs have already been frustrated by the movement. We want the motto; "Greatest good to the greatest number." We expect to grind axes, but they are

all American. The Association is not going to turn, or hold on, for any small jobbers—when we have put an axe in order every member must have the benefit of its sharp edge.

I can not conceive of a plan better adapted to the better diffusion of knowledge in bee culture than the one already in practice. Let us encourage the formation of as many Associations as possible. A half dozen live bee keepers can not meet and talk an hour without gaining something. The best of us are indebted to others for every idea that we possess; not always in expressed forms, but for material, that when combined gives it form. Free discussion will do much; each member can visit these small gatherings, and if he does not know much he may learn something every time and treasure it up, and with any experience of his own bring it to the National Convention next year and present it for the good of all, and in turn gather up the new ideas that are presented by others to take home to the little circle in exchange for what they furnished; they will again tell it to their neighbors, who put in practice, and profit by many things that would never have been dreamed of but for this organization.

Although I gave the question, "How to avoid angering the bees," I was not present when it was discussed; I presume the subject was not exhausted. It was given because it was thought important. If we get to the bottom of it we shall find that fear of stings is the great obstacle to experimental bee culture. Could we educate a generation without this fear, and then train the bees into quietness, we would progress with rapid strides. There is much to encourage us when we see the superiority of the Italians over the black bees—the result of judicious handling. We should remember that the blacks have never yet been approached except with intentions of pillage and murder. Who knows but handling judiciously for a few score years without angering them may accomplish much. Let us experiment with this in view the next summer, and report at the next meeting.

Free discussion is at the bottom of all true science; there are some questions not yet fully settled. Facts, fully authenticated, will usually decide. We should remember that mere opinion provides but little, unless we can know the ground on which it is based. Until a question is acknowledged settled we should be willing to admit more light whenever offered.

When Will R. King says, (See page 67,) "My experience teaches me that I can not have a queen fertilized by a drone from a virgin queen," it is well—experience is what we want;

but when he adds, "I do not believe it can be done," he does not give his position much additional strength. There was a positive statement made at the Cleveland Convention that queens were fertilized by just such drones. This would cause some at least to believe it could be done. His disbelief proved nothing to the contrary.

M. Quinby.

St. Johnsville, N.Y.

[For the National Bee Journal.

COULD NOT STAND IT.

Messrs. Editors: - I have been a reader of your journal for a short time, and have been very much interested in the various communications and editorials concerning the bee-its history, habits, and products. I find, however, some statements pretty hard for the uninitiated to believe. It has been frequently stated that from one to two hundred pounds of honey could be obtained from a good colony annually. This we thought pretty large, but when we saw, in your issue of Jan 1, page 9, that Mr. Hosmer proposed to obtain two thousand pounds from ten colonies during the season of 1872, our credulity could stand it no longer. Why, sir, this would require each colony to store about fifty-five and one half pounds per day, from the first of April to the first of October. If the honey was set inside of the hive the bees could not take it up and deposit it and seal it over. My opinion is it can't be did. Brag was said to be a good dog, but I always admired Holdfast. It is well to mark high and then work as near up to the mark as you can.

For the last two years bees have not done well in this part of the country. There were very few swarms came off. Box hives are the kind principally used. There is but little interest manifested on the subject. If we had a few colonies of your Egyptian bees it would wake us up down here in Egypt most likely.

I propose to try the busines in southern Kansas from and after the coming spring. The Rocky Mountain Bee plant—is it of any account, and what is it?

W. M. ROBINSON.

West Salem, Ill., Jan. 23, 1872.

The Rocky Mountain Bee Plant is claimed, by all who have seen it grown, or used it, to be of great value as a honey plant.—
ED.

[For the National Bee Journal.

QUEEN FERTILIZED IN THE HIVE.

Messrs. Editors: - I wish to give my experience on the drone question; and if you think it worth a place in your valuable journal, all right, and if not, all right. As this is my first attempt, I shall not be lengthy. Six years last summer I bought a queen, said to be pure Italian. In the fall I put it in a queenless hive. When hatched, I was proud of my queen; it was as nice as I ever saw. Of course it mated with a black drone, as I had no others, and the workers that were raised from this queen were tolerably well marked, about three-fourths of them having two yellow bands, and the drones were as black as any I had on the place. I have bought more or less queens every year since, until the last year, with like results. The drones that were raised from them were as dark as any I had in my apiary. The workers were tolerably well marked, but every year would get darker, until they would all be dark, not a vellow band to be seen. So last summer I bought a sheet of drone comb from an Italian hive, which was filled with eggs, grubs, and others that were almost ready to come out of the cell, with two queen cells on it. I put this comb into a queenless hive that I had purchased for it, and when the first queen hatched I took it out and gave it to another hive, and when the other queen hatched I put in a lot of empty sections, (as the sectional hive is the kind I use principally,) and shut the hive up so there could not a bee get out, and went to feeding them, and in eight days the queen was laying, and probably sooner, as I did not examine them sooner, and the result is, the drones that were raised from the first queen that hatched and mated with a black drone, are as dark as any natives I have got, and the drones, as well as the workers, of the second queen that I shut up in the hive, are as bright as any I ever saw, and of course she mated with her brother in the hive, as I shut it up the same day she hatched. If any of my brother bee keepers should doubt this, come to my apiary and I will prove it to you. The two queens are as near alike as two eggs, and their progeny just as I tell you.

LIGHT WANTED.

I have one hive that never kill their drones; or at least in the forepart of the winter of 1870 I put them in the cellar with plenty of drones in the hive, and in the spring of 1871, the same day I put them out of the cellar, the drones flew around thick, and last

November when I put the same hive in the cellar, there were plenty of drones still. Will some of your more experienced bee men please tell me, through the Journal, the cause of their not killing their drones? They have been in the hive for three years, and never swarmed, yet they have made as much honey as any hive I ever had, in the same time; but for the last two years my bees have not made much honey. Last year was the poorest one I ever saw. I fear I shall lose many of mine.

S. B. GARMON.

Hillsborough, Highland County, Ohio.

[For the National Bee Journal.

SUGGESTIONS TO BEGINNERS IN BEE KEEPING-BEGIN RIGHT.

THE ITALIAN BEE.

Messrs. Editors:—My experience is limited with the Italian. I had the hybrids last season; they work more earnestly, range over a larger scope of country, and guard the combs better against the moth-miller, and the young bees do not fall from the combs in handling like the black bee, but they are no more peaceable to handle—think they will pay.

BEE JOURNAL AND WORK ON BEES.

The NATIONAL is as good as any—try it; and I prefer H. A. King's text book to any cheap work I have ever read on apiculture.

BIVES

Use the movable comb hive by all means. I use the American, but do not think it to be the best that could be invented. Ten inches, I think, is the proper depth for frames, and twelve frames the proper number, and half-inch the proper distance between brood combs, fifteen inches at top the right width of frames, and half-inch narrower at the bottom, with an upper chamber for boxes or frames. I prefer large, shallow boxes. All hives should be so constructed so as to handle the frames from the outside of the hive when the cap and honey boxes are off. In shifting, cleaning out or handling your bees, have a clean, empty hive always ready, and set it just in front of the one you are operating on, and remove your frames, bees and all, into it, and remove the first hive and place the second one where it stood, and in that way you can shift one hundred hives with but one surplus hive to operate on. I do not like the entrance hole at the bottom of

the hive. I prefer it at the top of the brood chamber, with a round body, two inches in diameter, for an alighting board, with ventilating passages at the bottom to be closed and opened at pleasure with a turning shutter. Set your hives at least ten feet apart immediately in front of your dwelling; make your stand two feet high, so as to stand erect while handling your bees, and stand on the north side of your hives so as to shelter your spine and brain from the fierce rays of a summer sun.

You ask, "Will bee keeping pay? Just about like other rural

pursuits.

QUEENS.

I believe you will get better queens, as a general thing, in natural, than artificial, swarming. Still you can raise good queens by placing a card of new comb, containing eggs or larvæ just hatched, in the center of a strong colony that has been deprived of their queen. This should be done in warm weather, when the bees are in a prosperous condition and gathering plenty of honey. Do not shake, jolt or jar your queen cells, or you will injure and, perhaps, destroy the inmates.

COMB GUIDES.

Take strips of work comb, three or four cells deep, and fasten them to the inside of the top and side bars, by mixing equal portions of rosin and beeswax, and adding a little glue, and when heated and thoroughly mixed coat the bars with the mixture while hot and apply the strips immediately; or you may take honey or molasses and boil them to a stiff wad and apply in the same way. When all is cool trim the combs to an edge in the center, by dipping a sharp knife into hot water and trimming while the knife is hot; and in cutting combs from frames at any time leave a base of three or four cells deep as long as the worker combs last, but when drone comb sets in cut clean to the bars and replace with worker comb. This you will find to work well and no humbuggery about it.

I have no confidence in the fertilization of queens in confinement. I think it will never be a success with the common man; neither do I believe that drones are pure whose mother has matted with black drones.

Will experienced brother bee keepers correct me where I am in error, and show the beginner a better way?

Will all writers for the JOURNAL write over their own signatures and give their post office address?

MARTIN TERRY.

Cassville, Barry Co., Mo., Jan. 20, 1872.

[For the National Bee Journal.

EXPERIENCE IN BEE KEEPING.

Messrs. Editors: - I send you some of my experience in the "bee line." I commenced bee keeping on the improved plan-"patent gums" and "book larnin"-in the spring of 1870; bought three box gums for five dollars, and had one given to me, and took four of one neighbor and three of another on the halves. Two swarms of the 'four' lot died before doing anything, and the other two swarmed once each, and died in the fall, and the lot of "three" threw off five swarms, and two of the old ones and three of the young swarms died in the fall; getting about forty pounds of honey from the lot of four and thirty pounds from the lot of three, not very encouraging; two swarms and thirtyfive pounds of boney to our share on the co partnership bees. Our own did some better-gave more swarms and fewer died out in winter. We had three bee colonies live over winter to come in last spring. Our first year in the business was on the shady side; but still we were not discouraged.

Now for a few incidents. Our first swarm was looked for with a great deal of anxiety. At last it came, and settled without the "rattling of a bell," or "beating of an old tin pan." Hived them in one of King's "American" hives, very readily; but it would not do to tell you how often we all looked through the "observation window." However the swarm deserted the hive the next day; so we put them in another "American," after the larger half had gone to the woods, and the next day they deserted again and went back to the parent hive, and the next day swarmed out again. So I concluded they were old "fogies" and hived them in a box gum; but they deserted that, too. Then I took some large pieces of comb and filled them with honey, and fastened them to the top of a box gum, and put the bees in, and they went to work very well contented, but were reduced to a a mere double handful; but they came through the winter in fine condition, and gave us two good swarms and thirty pounds of honey last year. Another swarm came out and was hived, and staid in the hive five days, and then returned to the parent hive, and remained there.

If you wish, I will give you the sunny side in my next. Success to the Journal.

Yours, truly, Clarksville, Texas, Jan. 18, 1872. A. H. R. BRYANT.

[For the National Bee Journal.

REARING QUEENS.

SELECTION OF A BROOD QUEEN.

When the season for queen raising rolls round, the thing to be done is the selection of the right kind of a mother to propagate from. This should be made the previous summer. A mother queen should always duplicate herself during the hot season of the year when forage is good; otherwise she may be looked upon as having a dash of foreign blood, which can not be detected until she is tested by her queen progeny. She should not only duplicate herself in queen progeny, but be prolific, her workers large, beautiful in symmetry and color—long lived, active and good workers, and, according to Dr. J. Davis, small eaters.

SECURING EGGS AND LARVÆ.

Eggs for the propagation of queens should never be deposited in old, hard combs, if so, as a general rule, your royal cells will be small. Always insert a card of fresh comb about the center of your swarm, or where the queen is depositing her eggs, and it will be filled in a few days, if the swarm is large. If you have no empty combs suitable, insert an empty frame in the center of the hive and the bees will immediately commence filling it with new combs, and the queen with eggs, if forage is good, but if not, feed, and all will be right Leave the eggs with the nursing bees until they begin to hatch, or the little larvæ to show itself, and then they are ready to remove to any hive you may have selected for building your royal cells.

ROYAL CELLS.

Always select a strong colony well furnished with young bees to build your cells and nurse the queens.

The combs should be two or three years old, then upon the removal of the queen the bees will not commence readily to build royal cells upon the old combs, but the combs given them. To secure large, healthy queens, the cells must not only be built upon new combs, but the frames so adjusted as to admit a large amount of nursing bees to cluster where you desire the cells constructed. Invert a box-hive after a prime swarm issues, and where you find the largest cells, and most in number, always upon combs in the largest open space. If forage is not abundant feed until the cells are capped. Remove your cells upon the tenth day to good, warm

nuclei, and if started when the larvæ is the right age they will hatch about the twelfth or thirteenth day. I have had seven years' experience in queen raising, and find queens carefully reared as herein described to be long lived and prolific. Queens raised in mid-summer are generally the best.

INSERTION OF EGGS OR LARVÆ WHERE THE CELLS ARE TO BE BUILT.

First remove the old queen and immediately insert the eggs or larvæ, and if the eggs are hatched, in a few hours cells will be started upon your combs—some place the whole frame in the center of hive, but I not only think this a waste of eggs, but has disadvantages in other respects; the cells are often built upon the broad side of the sheet of combs, which, in the general, are inferior to those built in open space on the bottom or edges of combs. I prefer grafting in slips of comb (face down) in a card of old combs, giving plenty of room below for the bees to cluster and lengthen their cells. About the eighth day remove all cells, except those built upon the combs grafted in. Three or four sheets of comb may be used in the same hive for grafting into.

More anon, on other subjects if desired.

A. SALISBURRY.

Camargo, Ill.

[For The National Bee Journal.

REPLY TO M. C. HESTER.

Messrs. Editors:—On page 13, of the 1st of January issue, 1872, Mr. M. C. Hester states that I have taken advantage of my position as editor of the apicultural department of the North Western Farmer, whose readers, it may be presumed, are not generally well informed on apicultural subjects, to assert positively, and unqualifiedly, that the fertilization of the queen does not affect her drone progeny. And then he goes on to say that he protests against my giving this theory as an established fact to the readers of the N. W. Farmer, when I know that many respectable and intelligent apiarians deny or doubt its correctness.

To the first charge I would say that I have looked over all the numbers of the N. W. Farmer, for 1871, and find no such language in any of my articles. What I may have said in some of the numbers prior to the above date I do not now remember, but think I never used it in any. I, however, expect to do so soon, but shall give all the evidence, both for and against the theory he refers to. If he claims that my article for December.

1871, contains any such language, I can only say that he does not represent me correctly. I did, however, state in the article referred to, that the eggs from which the worker bees are reared are impregnated by the seminal fluid of the drone; whilst such as drones are reared from are not. If Mr. Hester objects to this, and still persists in saying that many intelligent and respectable apiarians do not accept this as true, then I must say, in reply, that, although they may be respectable and intelligent on other subjects, on this one they are not well informed. I hope friend Hester will understand from this that I stand ready to defend any position I take in regard to any subject pertaining to bee culture, and hope he will always quote me correctly, and should I, by accident, drop an expression which is not correct, I shall be ready at all times to correct the same whenever so informed, but in the case he alludes to I can not yet see the point. Besides, I am ready to discuss the drone question with Mr. Hester, or any other man, so long as he confines himself to the subject, but I do not wish to leave the subject and resort to misstatements, and they foreign to the subject. I do not mean to say that Mr. Hester would do so, but wish this understood before I plunge in discussion with any one again, as it is not becoming to do so.

[For the National Bee Journal.

TROUBLE WITH THE BEES.

Messrs. Editors:—I would like if you, or some of your numerous readers, would tell me what is the matter with my bees. They have been dying all winter, more or less. Some of them leave their excrements in the hive; some of them muss up the top of the frames, and it causes a very bad smell—they will crawl around the edges of the hives on top of the frames and die in heaps; a great many die and drop down on the bottom of the hive. I clean them out every week or two; sometimes I take out a quart at a time from a hive. I have lost about twenty out of thirty stands that I had when winter commenced. It looks like I was going to lose all. There are not many other bees dying in this neighborhood—or not the whole hives—but there is a great deal of complaint of part of the bees dying, or more so than common.

I have wintered bees and not lost a bee that I could see. My bees did not raise any brood in the latter part of the season; I thought that might be one thing that ailed them. They were all old bees.

I commenced with nine stands last spring and transferred them into movable frame hives, and increased them to thirty-two hives, and it was so dry in the latter part of the season that they quit breeding and run down until some of them were not very strong when winter set in. I fed some of them with a syrup made of coffee sugar. I thought that that might have been the cause of their dying, but I lost as strong a stand as I had that I did not feed any of the syrup—it was a stand of hybrids that I thought a great deal of; they had a nice queen that mated with a black drone. If there is anything to stay the disease I would like to know it in time to save a part of my bees.

I am a new hand in the business with movable comb hives. I thought I was getting a very nice start. I am using a hive of my own getting up, that I like very well. I fixed up a small house and put a part of my bees in this winter, and a part I set in a row and packed straw around them; one stand I left on its summer

stand and set up boards around it.

There is a great deal of excitement up here about bees. There are a great many old fogies that are wanting their bees transferred into movable frame hives—some one kind and some another. We are starting a small association in this neighborhood to get the excitement up more than it is by spring, as there is a great deal of room for it.

If you can get any scraps from this that will do to put in your journal to any advantage do so, if not let it go.

Respectfully,

ELI FRAZIER.

Rockville, Ind., Jan. 20, 1872.

P. S.—If there are any premiums on the three names I sent you about six months ago—John Frazier, Lawrence Kerns and a man at Rossville, and one that I subscribed for to distribute amongst my neighbors—send them to me and I will commence on the new list.

E. F.

[For the National Bee Journal.

REPLY TO A. BENEDICT.

Messrs. Editors:—On page 179, July number, Mr. Benedict says Gallup thinks that bees in natural swarming commence to build the royal cell over the egg, and before it hatches into the larvæ. Now I wish to inform the reader that I do not think any such thing, and never did, because I knew better. Now I will explain so that every man, woman and child can see for them-

selves. In the first place we have a stock that has become very populous, they are gathering forage freely, their queen is a prolific one, and it is the right time in the season for natural swarming, and we will examine this stock every day, sometimes two or three times per day, and the first preparations we see for swarming is incipient royal cells, not built over eggs or larvæ, but, perhaps, built on the side of the comb, on the side bar to frame, and, perhaps, on the bottom bar to the frame, entirely detached from the comb, eggs or larvæ. We next see eggs in those cells, and on the third day after discovering the eggs we see the larvæ just hatched and the workers depositing the royal jelly-as it is called by some-in the cell with this royal larvæ; they are also enlarging or lengthening out the cell. Now, providing this stock is well ventilated, about the time these cells are ready to seal or perhaps the first cell is sealed up, out comes the first swarmunderstand that great heat or improper ventilation will compel them to come out without any preparation. Now, providing that this stock is Italian, they will very likely go and build more royal cells over larvæ just hatched, which were deposited in worker cells; that is, the eggs were deposited in worker cells, Now, on the fifteenth or sixteenth day from the time the first egg was deposited in the first cell, we have the first queen hatched out-the time varies according to the state of the weather; cool, retarding; hot weather hastening the time of hatching. I have had the hatching retarded to twenty-four days, and frequently eighteen to nineteen days.

Mr. Benedict says, further on in the above article, "I think they will find that they have commenced on the cells containing the larvæ in every instance." Then, he says, he has got Gallup just where he wants him. He then goes on to tell how to proceed to test the matter. Mind, reader, after saying that they never commence to enlarge the cell containing the egg, but always commence on cells containing larvæ. Then he wants me to back and mark every cell where the bees have commenced with the egg. "O, consistency, thou art a jewel!"

Well, now, kind reader, we heard our friend B. try to tell us how to raise queens at the Indianapolis Convention, and I really wanted you to know some of his superior knowledge on this question, therefore I have led him on as I have. Now I am going to inform you how to test this matter. I do not like the terms natural and artificial. I would rather prefer natural than unnatural. Deprive a strong colony of bees of their queen at or about swarming time, or at any time when they have an

abundance of brood in all stages-abundance of nursing bees, and are gathering forage—and a large majerity of the queens you raise under these circumstances will be good ones, prolific and long lived. But if they start a large number of cells, some of them the bees will be apt to neglect after starting them; yet seal them up at the proper time and they come out imperfectly developed on account of not receiving the proper care, and the amount of food necessary for their full development. This is the only rational manner that I can account for some natural queens being worthless as to prolificness. I have always said that under the above natural and necessary requisites for queen rearing I could never discover any difference in the longevity and prolificness of queens. On the other hand, we will deprive a colony of their queen-when they have been raising no brood for six weeks on account of a lack of forage; they have a few eggs or larve, yet they are not preparing any food to amount to anything, and there are but very few nursing bees-and you will be very apt to raise inferior queens; yet we must not attribute their inferiority to their being started from the egg (for in natural swarming they are started from the egg or larve just hatched) but to the fact they were improperly and insufficiently fed. Now, reader, here is just where Mr. B. and myself disagree. He removed young queens from his nucleus hives when they had just commenced to lay, and allowed those nuclei to raise queens at a time when they had not been preparing food for larve, and also at a time when they had scarcely any nursing bees, and the consequence was he raised inferior queens, and instead of attributing it to a lack of food and, perhaps, warmth, both combined, he attributed it to their being started from the egg; but when he waited until the larve had considerable of it hatched out - consequently the nursing bees were preparing large quantities of the so-called royal jelly—he succeeded in getting larger and better queens. This was a natural consequence. Again, allow a stock of bees to raise one set of queens; then after they are all removed give this same stock a comb containing eggs and larve just hatched, and you will be very apt to raise an inferior lot of queens; not on account of their being started from the egg, but because the nursing bees are too far advanced in age, and because they are not preparing the necessary food in sufficient quantities. Again, take all old bees from the outside of a hive (they being clustered) brush them off, hive them in a nuclei hive, give them eggs and unsealed brood to start queens from-such old bees will not often start queen cells-and if they

succeed in raising any queens they will almost invariably be worthless; and providing they are raised late in the fall in this manner from one of their boasted queens that they claim will duplicate herself every time, they will be very apt to be small, worthless and as black as a crow. Now comes a query; does all this unnatural and unseasonable raising, providing the queen is black, constitute her an impure queen, providing her mother was pure, and she mated with a pure drone and produces all three-banded workers? We might not wish to breed from her, but I really think she is pure for all that. You will remember how our friend Benedict condemned a Langstroth queen because he raised some dark colored queens from her while he was on Kelley's Island.

The next question is one friend Benedict wishes me to tell him how to raise queens, and I am going to ask a question and answer it myself. What is the condition of a stock of bees in natural queen raising? There is an abundance of brood in all stages, from the egg upward, and there is an abundance of nursing bees; they are gathering an abundance of forage, consequently are preparing large quantities of the necessary food for the royal larve. Now, in order to raise good queens, we must see that all these necessary requisites are complied with, and queens raised under all these requirements are natural, to all intents and purposes. But queens raised without these requisites are unnatural, and as a general rule worthless.

Now, out of some nine eight-day queens that I have tested, I have never had one last over three months, or one season; my nine day queens have never lasted over two seasons, and my ten day queens over three seasons. Natural queens, started from the larve just hatched, have repeatedly lasted five seasons. I have had ten-day queens that were large, handsome and prolific while they lasted, and all I ever claimed for them (providing they were properly raised) was that their life was shortened. I have raised just as good queens in my nucleus hives by attending to the eight conditions, and never allowing them to have over two cells to attend to, as I ever did in any manner, but I prefer to raise my cell in full standard stocks and transfer to nucleus hives.

E. Gallup.

From all the reports that have come in, the bees have been better for the few warm days; they having been able to fly and discharge their excrements.

[For the National Bee Journal.

A CHEAP EXTRACTOR.

Messrs. Editors:—I have been requested to describe in the Journal an extractor used by me during the past season. But lest some one should think that I have an "axe to grind" in doing so, I wish to say at the outset that there is no "patent" on it, and that I have none of the machines for sale; nor do I claim to be the inventor of any of its features. I have picked up the unpatented ideas of other men, turned them over a time or two, rubbed off a rough corner here, and filled up a crevice there, and put the whole together into what I consider a very convenient and a very cheap home-made extractor. But, by the way, is not this as much as many of the "patentees" in the apiarian department have done?

There are three essential principles, or features, in all extractors: centrifugal force, support for the combs against this force, and vessel to catch and save the liquid honey as it is thrown from the combs. What the bee keeping public want is a combination of these essentials in the most convenient and least expensive form. I do not recommend the extractor I have as any more convenient, but as less expensive than any I have seen in use. And a great advantage in it is that any one, with a little assistance from a farmer, can construct one for himself.

Every one, I presume, has seen or heard of the "swifts, or winding-blades," from which our grand-mothers wound their stocking yarn. Well, let any one imagine a set of these "winding-blades" placed in the form of an \bowtie , with two tin boxes, or cans, each containing a card of honey and a frame of wire-net-work to support the comb, suspended between the arms of this \bowtie , and he will have a fair idea of my extractor. But for the benefit of those that may desire it I will detail more fully the plan of working, and the mode of operating, this machine.

The tin boxes should be made to suit the frames used. I use the Langstroth frame, but they can be made to fit any other frame. They should be just long enough to receive barely one card of honey and a frame of the same size covered with the wire-net-work to suppost the comb. They should be about two inches deeper than the frames, to keep the honey, as it settles to the bottom, from covering the lower part of the combs and frames. For the Langstroth frames I make my boxes eighteen inches long, eleven deep, and three wide. I have a flange turned

out from the top of each end, on which the card of honey and the comb supporter are suspended within the box, and by which the box itself is suspended in the revolving frame. The tops of the boxes are arranged with tight-fitting covers, to prevent the honey from being thrown out, as well as to keep the bees from getting in while operating the machine. The covers may be kept in place by wire catches, or clasps, at each end. For the purpose of drawing off the honey I have soldered in the lower part of one end of each box a small tube, on which a metallic cap is screwed for a cover, such as are used by tinners in the tops of oil and other like cans. To make the comb supporter, take a frame the same size as those used in the hive, and tack on it a wire cloth, the meshes of which should not be less than four to the inch. If they are smaller than these the honey will not flow through freely. I use only one mesh to the inch, and I do not want less. If the right kind of wire-cloth can not be obtained, as was the case with me, a net-work can be made of fine wire. Lay the frame on one side, and with pencil and rule mark off the edges of the other side to the size of the desired meshes; drive small tacks down to the heads at these marks; run the wire from tack to tack, both ways of the frame, platting it "bed-cord" fashion, and then drive the tacks in to hold the wire tight. frame is to be suspended within the tin box, outside of the honey card, and with the wire next to the comb.

To make the revolving frame, or "winding-blades," take two strips of inch plank, four or five inches wide and about three feet long, lay them together in the form of an M. Mark where they lap on each other, and cut half through each so they will fit tightly together. To make this frame stronger, short pieces of plank can be nailed on each side of these strips at the point where they lap. Through the center of all these bore a five or six quarter hole to receive the spindle, and be sure to make this hole perfectly straight. Set the tin boxes across the ends of this frame, allowing the extremeties of the arms to project an inch or more beyond the outside of the boxes; mark and cut out of the frame enough to let the boxes in firmly; tack a slip across from one arm to the other, just outside of the box, to hold it in its place. With this frame, supported on a strong spindle set in a firm pedestal, and a pin or knob in one arm of the frame about eight inches from the top of the spindle, by which to revolve the machine, and the Rough-and-Ready, Home-made, Winding-Blade Honey Extractor is complete.

If it be desired to sling four cards at one time, instead of two,

it will only be necessary to double the width of each box, putting

a partition in the centre.

It will require but little power to operate this machine by the hand; a few revolutions will empty the fullest combs. The operator will soon learn just how to turn it to throw the honey out without disturbing the unsound brood. The whole apparatus should not cost over four dollars.

Respectfully yours,

M. C. HESTER.

Charlestown, Ind.

[For the National Bee Journal.

SMALL COLONIES FOR WINTERING.

Messrs. Editors:—In the December number of the Journal, page 533, there is an article on "Wintering," to which you in-

vite attention, and solicit correspondence.

The article in question being, or involving, a fact that I have realized to some profit, I have concluded to make that fact known. I will first state candidly that my knowledge of bee culture is quite limited, having never used anything but the old "bee-gum" until late last spring, when I purchased a "Buckeye Hive;" the fact alluded to relates to that kind of hive only, as will be seen presently. If I rightly understand the matter in question, the point is strong or weak colonies in the fall. My judgment is decidedly in favor of weak colonies, provided they are in a healthy condition.

Now for the reasons. I have been much annoyed for several years by a class of youngsters, calling themselves B'hoys, who have a strong proclivity for stealing and robbing bee gums; particularly about Christmas. To avoid this, in the fall of 1868, I removed all my bee gums to a warm, dark cellar, and kept them securely locked up. Some of these colonies were strong in numbers, and rich in honey, while others were weak and poor. To my astonishment in the spring the weak colonies were in much the better condition threw off more, and larger swarms than those that were stronger in the fall. Succeeding so well in this place (for I lost not a single colony during the winter, which I had never done before) I determined to "try again," which I did with the same results. I have pursued this plan every winter since then. I have lost no bees during winter; my weakest colonies are invariably my best in the spring; and I never even feed or water my bees during winter. I am satisfied, however,

that my cellar labors under a serious defect, which I shall hereafter correct. It is under the kitchen floor, which is a back projection of my dwelling house; and in winter this is both diningroom and family work room. My family being large, and mostly females, there is a continual tramping on the floor over the bees, thus disturbing that repose so necessary to economy of food. This winter I have my bees mostly in Buckeye hives, some strong and some weak. I am giving them all the attention they require, and by spring I think I can give you more definite information on the subject. I am not sufficiently posted in bee culture to advance a theory on the subject, and have none to offer.

I shall continue to note facts, and should anything worthy of

note come to light, it will be at your service.

Respectfully yours,

A. C. CUDE.

Beardstown, Perry Co., Tenn., Jan. 13, 1872.

[For the National Bee Journal.

LIVINGSTON COUNTY, ILLINOIS, BEE KEEPERS' ASSOCIATION.

The second meeting of this Association was held on Thursday and Thursday evening, December 21, at the Court House at Pontiac, Ill. The attendance was fair, considering the severity of the weather. Ford county was represented by J. S. Sleith, of New Brenton. Miss E. A. Hobbs, of Five Mile Grove, was present; coming, as she did, some ten or twelve miles across the bleak prairie to attend the Convention, she exhibits a zeal for the cause worthy of her sex, and should put to shame some of our less determined male bee keepers.

The meeting was called to order by the President, Judge Duff, of Pontiac, who made a short but very appropriate speech, when he proceeded to complete the organization by adopting a constitution.

The following questions were then discussed: "Best mode of wintering bees." "Will it pay to keep bees." "Best method of obtaining the most surplus honey." "Best mode of making artificial swarms." "Are the Italian bees superior to the black?" "How should bees be fed?"

We have notes on the discussion of the above topics, which will be prepared for publication soon as possible.

At the close of the discussion the following resolutions were adopted:

Resolved, That a vote of thanks be tendered the bee keepers of Pontiac for the hospitality shown us while stopping among them.

Resolved, That the bee keepers throughout this and adjoining counties be requested to collect and forward to the Secretary the names and P. O. address of those keeping bees in their respective neighborhoods, that he may notify them indvidually of the time and place of the next meeting.

Resolved, That a copy of this meeting be sent to the county papers for publication.

The Secretary was instructed to extend, in behalf of the society, a cordial invitation to all the bee keepers throughout this and adjoining counties to attend our next meeting, which will be held at the Court House at Pontiac, on Wednesday, and Wednesday evening, February 7, 1872, commencing at ten o'clock A. M.; when the following programme will be carried out: Address, by S. B. Ledgerwood, of Forrest. Subject: Improved bee culture. Essay, by John Sleigh, of Pontiac, and others.

General discussion will be had on the following topics: "Will it pay to keep bees?" "Transferring bees." "Rearing and introducing queens." "What merits do the Italians possess over the blacks?" "What are the advantages of the movable comb system?" Will it pay to cultivate crops for bee-pasturage."

Any male wishing to become a member of the society may do so by forwarding to the Secretary his name and fifty cents, as a fund toward defraying the expenses of the society. Ladies may become members by simply forwarding their names; and are specially solicited to be present and participate at our next meeting.

On motion, the society adjourned to meet as per call above.

JONATHAN DUFF, Pres't.

S. B. LEDGERWOOD, Sec'y.

The above was, by some accident, mislaid, which is the cause of its not appearing; hereafter we shall keep on file all articles, so that no one that sends in his articles but will get a hearing in his proper turn—we intend that no one shall be refused. Should any articles be rather personal we shall use our judgment in publishing them; we have, however, published one rather personal against ourself, but as the joke happened to fall on the other side, where it will probably stick, we let it pass; but kind words, although painted, is what suits all candid persons, and such will be thankfully received.—Ed.

[For the National Bee Journal. SNEAKING OUT A PATENT.

Messrs. Editors: -To most of the scurrillous attacks and mean insinuations of Samuel Wagner against Mr. King, the latter has not deigned to reply, and to our knowledge he has more than once refused the columns of his journal for these personal affairs, even though written by others in his own defense. We shall not call in question the wisdom of his course, for when contrasted with Mr. Wagner's, even the latter's own friends can not but admit that it is the wiser of the two. It is generally true that slanderous upstarts will not injure, unless by combatting them we give them standing and character. But there are occasions when "forbearance ceases to be a virtue;" when if a man does not raise his voice in defense of his motives, or character, he will have the one impugned and the other injured by the falsehoods of envy and malice. From our position as Associate Editor of the Bee Keepers' Journal, we have had every opportunity of becoming familliar with all the facts of the present controversy, and shall therefore speak advisably in answering a few of Mr. W.'s "foot-notes" and "editorial vents of impotent rage."

We are informed that Mr. W. is an "old man," and this fact is frequently brought forward to excuse his conduct. Were we to judge of his age by these personal attacks on Mr. King, in defense of his hive interests, we should unhesitatingly pronounce him a very young man, for they exhibit only the rashness of youth, and not the experience and sober thought of a mature mind. The only way we can reconcile his injudicious course, his "storms of blind fury," with the reports of his great age, is on

the supposition that he is now in his second childhood.

Mr. W. warns the writer of an article in his last journal, to be on his guard lest Mr. King, whom he courteously denominates "The Great American Humbug inventor," should "sneak out a patent," on something mentioned in his article. We once heard of a man who insanely supposed he was monarch of the whole earth, and who raved incessantly because men did not come and reverence him. Mr. W. is almost there, for he arrogantly assumes that all matters pertaining to apiculture must be referred to him, and if a man obtains a patent on any device to advance bee culture, without his knowledge and consent, he "sneaks it out." This is just what Mr. W. meant by this expression, and we propose to substantiate it, and to show who "sneaks" and how it is done.

By the rules of the Patent Office, no officer, clerk or employe is permitted to give any information concerning the application for a patent, or the proceedings during its examination, except to the inventor or his authorized agent. Yet it has been long reported that Mr. Wagner was intimate with Patent Office officials, and being better posted on bee matters than they, was generally consulted when applications were made for patents on bee hives. and owning territory in the L. L. patent, he had always done what he could "thus sneakingly," to prevent the issue of such patents. These reports were recently confirmed by a prominent member of the Cleveland Association, from the South, and there is no doubt of their truth. When Mr. Quinby made application for a patent, he thought of going to Washington himself, but his agent thought there would be no difficulty in receiving it, and he did not go. The consequence was his application was rejected "because the device was carried by Mr. Wagner's patent." How was it discovered that it conflicted with Mr. W.'s patent? Wagner's friend, Mr. Bickford, admitted that he (Mr. W.) "happened" to be in the Patent Office when the application was being examined, and was invited into the room to give his opinion on the case. Thus Mr. Q.'s patent was not "sneaked out," because the "Oracle" had been consulted, but if he had gone there himself and pushed it through, it would have been "sneaked out." These are facts. We expect Mr. W. will deny them, for he has done worse than that. We don't say that he owns territory in the L. L. now. Oh no!

Last spring, soon after the broadside of Wagner, Otis & Co., (with pigtail illustrations), Mr. King made application for a patent. He soon heard that it was rejected, but believing there was no good reason for rejection, he went down and argued it through, and for Mr. W.'s benefit announced it in the Journal as "Patent No. 4." We verily believe that Mr. W. was the cause of the first rejection, and believing he had given it a quietus, had retired to his den, and the first knowledge he had of its successful issue, was when he read it in the Journal. This explains how it was "sneaked out," and also accounts for the "howl of insane fury" which the great "Oracle" utters in his impotent wrath.

Now, lest future results should seem to confirm the opinion of Mr. W.'s admirers that he is really a prophet, let us explain how he came by his knowledge. Soon after Mr. King's return from Europe, he mentioned, editorially, that his observations during his travels would enable him to perfect certain improvements which would remunerate him for his expense and time, and also

be of great benefit to the cause of apiculture in America. While on a tour through the West he incidentally mentioned this to several prominent bee keepers, and among others to the writer of the article to which Mr. W. appends the filthy note from which we learn for the first time that it is possible "to sneak out a patent."

But Mr. W. attempts to avoid the force of the testimony of Mr. Moon and others by asserting that there was "no living principle in any of their devices, and that all were failures." How much such words as "ratiocination," "interwoven," and comparing all bee hive inventors, except Mr. Langstroth, to skinnershow much these add to the force of his arguments we leave the reader to decide. If there was no "living principle" in their hives, there is none in Langstroth's, for the same principle is involved in both. How could they be failures, (through imperfections) and Mr. L.'s a success (because perfect) when the frames of the latter are only a copy of theirs, and when his hive presented not one additional new feature, except the moth blocks at the entrance. It is true Mr. Moon did not use the triangular guide, but L. & Co. do not now claim that as their invention.

Is there nothing significant in the fact that Harbison, Metcalf, Langstroth and others began to sell hives extensively about the same time? About the same time, too, that reapers, sewing machines and other improvements were rapidly introduced? The times were ripe for these things, and their introduction was a natural result. That one man should, at the opportune moment, seize on the results of other men's experiments and years of deep thought, and by a combination of favorable circumstances, secure the protection of a patent on a set of combinations, is no proof that he invented a single feature of the device. "Success"

is not always the infallible evidence of success.

Mr. W. well knows why the testimony of Berlepsch can not be used as legal testimony. But the fact that our laws provide that the prior use of an invention in a foreign country shall not invalidate a patent here, unless such invention shall have been patented, or shall have been described in a printed publication, does not affect the truths stated in the Baron's oath. In that oath he declares that he used the identical Langstroth frame (more properly the Moon frame) six years in advance of Mr. L, and that there are many living witnesses who will attest the truth of his statements. Mr. W. exhibits astonishing zeal in trying to make the American public believe that Langstroth is "the original inventor," and in the face of the testimony of such a

man as Berlepsch, asserts that up to December, 1851, "and for many months thereafter, there were no practical frames in use in Germany." We are glad he is drawing nearer the truth, though slowly and cautiously. Ten years ago he said Berlepsch "adopted" the frames in 1855; last spring he dropped off two years, and put it 1853; now he says "up to 1851," and the indefinite for "many months thereafter." We hope he has not reached the "minimum," but will yet "drop another cat." Mr. L. himself comes a little nearer the truth, for he says, "after my application had been favorably decided upon, Berlepsch invented frames of a somewhat similar character." But Mr. W. "does not wish to influence public opinion" by publishing the Burlepsch oath. Oh no! That would be decidedly wrong! Investigation and National Associations were all right last spring; but they are going too far to suit Mr. W.'s ideas of what is right and proper. Oredit is given to whom credit is due. Public opinion is changing, and National Associations give expression to public opinion.

But, again, he did not know how much garbling the Burlepsch oath had undergone in Mr. King's hands. He did know that he had "shamefully garbled Mr. L.'s letters to suit his own base purposes."

This is not an "insinuated untruth," but a positive falsehood. There is but one letter which Mr. L. ever complained of, but Mr. W. says "letters." Let him produce them. The letter in question is now in this office, and that and the Original Berlepsch Oath can be examined by any one wishing to test the value of Mr. W.'s assertions. An extract from the letter was published in the August number of the Bee Keepers' Journal for 1870. There were three paragraphs in the letter. The first related to the death of his son, the second concerning persons whom Mr. L. claimed to infringe on his patent, and the third related to Mr. K.'s proposition to terminate an arrangement which had existed between them. We reproduce the first paragraph here, italicising the words which were not published in the extract:

OXFORD, O., JUNE 27, 1870.

Messrs. H. A. King & Co.

Gentlemen:—My son (J. T. L.) died in Massachusetts, on the 14th, just eight days after leaving home. His health had been failing for more than a year, but he continued to do business until the day he left. He had Catarrhal Consumption as well as heart disease. He was fully aware of his critical condition, and entirely resigned to the divine will. His wife found your letter of May 30, in his pocket, and says that if he had not been so very feeble he would have called on you when passing through New York.

Mr. Quinby was in our office a few days since, and the original letter was shown to him, and compared with the extract given above. One error was found. Mr. L. said "catarrhal consumption as well as heart disease." The extract read, "as well as the heart disease." The word "the" was inserted before "heart." What base purpose was served in publishing this extract? Mr. King thought it an act of courtesy to Mr. L. to announce the death of his son, and the exception of such a letter by any editor, under similar circumstances, would be accepted as a request on the part of the writer to so announce it. The publication of the business part of the letter would have been sadly inappropriate in that connection, and would have caused greater complaint from the "crew" than even what was done.

This, then, is the "garbling" for a "base purpose" of which Mr. King is publicly accused by the "Oracle" at Washington.

Such accusations show to what extremes the jealous rage of the "old man" has driven him, in defense of a sneaking cause. All of Mr. King's acts are attributed to "base motives," and are regarded as "poisoned arrows, designed to kill." Even Mr. King's efforts in behalf of Mr. Langstroth, through his journal, and at Cincinnati, were rejected with scorn, and Mr. King accused of "publishing Mr. L. as an object of charity." "What were virtues in other men, are in him, vices," for he did not publish his appeal in the Journal until Mr. Wagner and Mr. Bickford had made an abortive effort; and at Cincinnati he did not inaugurate the movement till L. L. had been consulted, and to his assent, had added the story of his misfortunes.

More anon.

M. E. WILLIAMS.

[For the National Bee Journal.

TO BEE KEEPERS.

The bee keepers of Indiana are hereby invited to meet at the Senate Chamber, in the city of Indianapolis, on the 23d day of February, inst., at 12 o'clock M., for the purpose of organizing a State Apiarian Association, and to compare our winter experience in the apiary. By order of Committee,

M. C. HESTER, ABNER J. POPE, A. F. Moon, E. DR. G. BOHRER.

E. G. HOLLADAY, J. M. HICKS, WILLIAM A. SCHOFIELD, STEPHEN MCNABB, THOMAS ATKINSON, E. H. BARBER,

Other papers please copy.

EDITORS' TABLE.

The co-partnership heretofore existing between A. F. Moon and N. C. Mitchell, publishers of the National Bee Journal, is this day dissolved by mutual consent.

Moon & MITCHELL.

February 2, 1872.

TO OUR PATRONS AND FRIENDS.

We announce the withdrawal of N. C. Mitchell from the partnership of the National Bee Journal. Mr. Wm. A. Schofield having purchased an interest in the Journal, will bring to its aid a rich experience in apiculture. Our patrons will lose nothing in apiarian ability, in the interest to make a full and free interchange of thought on apiculture.

Thankful for past favors, we invite you to give us items of your discoveries and questions on any subject arising from apiarian thoughts and experience. Do not hide your light under a bushel,

but bring it on that it may give its light to all around.

We come before you with strong confidence of success in our enterprise, provided we are favored with health and wisdom to such intellectual food as the minds of a discriminating, intelligent, and progressive people demand; in our attempt to do which you may not expect us to go out of the range—human society—to find the material out of which to prepare our semimonthly meal. You will, in the future as in the past, allow us to draw largely on yourselves for our base of supplies, for whom better among men can we go than among those who, in the past, have come to our help with their items of rich inquiry and other various experience, opening up to us new channels of thought, and sending us out on new errands of investigation—either to our storehouse of the past, of hard earned treasure, or in exploring other fields in the hope of finding a richer fruit for the gratification of our guests.

Our great desire shall be to elevate the mind more than to please the fancy. We would not refrain from enjoying the fancy if that would more effectually open the way to progress in apiculture; that while we aim to make the apiary more productive,

we would not seek to accomplish it at the sacrifice of things more valuable. We hope to merit the confidence of our patrons by the advancement of their interests through the JOURNAL.

You may expect us to be goverened in the conduct of the Journal by the Golden Rule, that we may expect the same by you. Should we fill our journal with choice reading, we may expect, as a natural result, that growth of capacity will be attained by the reader of the Journal as well as ourselves. We do not wish to humbug the people in the department of apiarian science We shall investigate patiently all facts connected with the interest of any and all the bee keepers of this country. We shall patiently investigate all that which seems to have good qualities, and if found worthy to stand, boldly to state the facts, and not be turned by sneers nor frowns.

We want the sympathy and confidence of our fellow men, and mean to give it by a fair and honorable course if possible, and elevate the standard of journalism, so that our country may lead the world in apiculture, as well as in our professional or mechanical departments.

Let it not be said in the future, as in the past, that the apiary is a hidden mystery—by favoring the agitation of questions, truths may be brought fourth that might otherwise remain hidden from sight.

How can we profit by such other experience and pay your subject better than to encourage the organization of Associations? State, county and township libraries and journals, situated to our actions, may be the means of benefitting all our friends in bee culture.

WAKE UP-WHY STAND YOU HERE IDLE ALL THE DAY?

A few words to our brother bee keepers. A short, intimate connection with the National Bee Journal, also with the apicultural interests of the State of Indiana, has made us practically acquainted with the deficiencies and necessities, as well as the advantages, of our apiarian interest; which should bring the bee keepers into a more intimate knowledge, and closer relations with each other, to practical bee culture; and the results of such would add general interest to the farmer and wealth to the State. Then let us work; "labor and industry," well applied, seldom fail of finding a treasure. Life, in this branch, is but one continual chain of progression; but few years ago, in many places, this State was nothing but a howling wilderness—wild beasts had

their haunts where temples now rear aloft their proud and stately steeples; where now can be seen those beautiful and elegant mansions, all showing the progressive and handiwork of man. Connected with all these inprovements may be seen, in many places, large, fine apiaries, increasing the beauty and adding to the comforts of our pleasant and beautiful homes. What is now most needed for the bee keepers of this State, is to form a State association. Such an association, to meet annually at your State Fairs, would greatly increase the interest of bee culture throughout the State. Then, friends, rally to the standard, and organize a State Association, to be called the Indiana State Association.

With this number it will be seen that the National Bee Journal has changed hands. Mr. N. C. Mitchell, who has published the Journal for some years, has sold his entire interest to William A. Schofield, of this city. The new firm of Moon & Schofield will publish the Journal hereafter semi-monthly at two dollars per year.

All persons indebted to the National Bee Journal Office, either for advertising or subscription, will please remit the same to Moon & Schofield, who will see the amounts credited to each

one.

Write your name and address plainly, giving State and county, thereby saving all mistakes. All letters pertaining to business connected with the Journal that reach this office, will receive a prompt reply—in this way you may know whether your letters reach us.

Moon & Schofield.

Many of the advertisements now in the Journal for queens, etc., have long since expired; a new firm has been established, and wishing to do busines in a correct and satisfactory manner, we have concluded to strike off all the old advertisements, except those that have been renewed. This will enable us to commence with new books. In this way we are better prepared to do justice to our patrons as well as ourselves. And it will please all, as every man or woman, who have bees or other stock to sell, can send in their card and have the benefits of our advertising columns at the regular rates of advertising. We are thankful for the great interest manifested in behalf of the Journal. Within the last two months it has increased rapidly, for which our friends have many thanks. We hope for a continuance of your patronage.—Ed.

THE NORTHWESTERN FARMER.

We take pleasure in noticing this valuable agricultural paper, published by Messrs. Caldwell & Kingsbury; a monthy journal at \$1.50 per year. These gentlemen are deserving of much credit for so able and valuable a paper. It certainly should be in the hands of every farmer in the State. Farmers, support your paper by your money, by your energy, by your influence, by your communications—all help make up a grand agricultural paper for the State. Let there be a united effort on your part, and soon you will see the fruit of your labors.

The lands in this State are adapted to grain and fruit raising, and in fact everything in the agricultural department. We hope ere long to see as fine an agricultural college in this State as in any other. We certainly should not be behind in this enterprise, while our sister States are enjoying fine colleges. We certainly should keep pace with the great interest of the day.

For some time past the card for 10,000 queens has awakened quite a large number of our friends engaged in bee culture, by sending their names for the Journal, and one pure queen. We will say, to all such, your queen shall be sent you just as your name now stands on the list for queens, each one taking his turn. After this date, Feb. 16, we can not fill any more orders at this price; hereafter we shall charge for one pure Italian queen two dollars and fifty cents, which is as cheap as can be afforded, and save enough to pay expenses. We would like to accommodate all our friends at the same price as we have the first, but we can not fill the bill at that price, and letters are coming daily from almost all parts of country to know whether we will sell any more this season. We will fill orders at two dollars and fifty cents each.—Ed.

Genesee Democrat is published every Saturday, at Flint, Michigan, by R. W. Jenny and C. Fellows. It contains a large amount of good local reading—agricultural, apicultural and horticultural branches are well represented. Just the paper for the farmer, and all lovers of good local reading. Success to their noble enterprise.

Many thanks to Hon. David Macy and A. B. Southard, of this city, for courtesies bestowed upon this office.

PUBLISHERS' DEPARTMENT.

Advertising Rates.

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We adhere strictly to our printed rates. Address all business communications to MOON & SCHOFIELD, Publishers.

BEE-KEEPERS' DIRECTORY.

Parties desiring to Purchas Italian Queens and Colonies, will find in this Directory Purchase the names of some of the most reliable Breeders in this Country.

Cards inserted in this Directory, and copy of the paper sent one year, for \$10 per annum, cards to be four lines or less. For each additional line \$2 per annum will be charged. A line will average six words. No cards received for a less term than six months.

E. J. PECK. IMPORTER & BREEDER.

Send for Circular. Linden, N. J.

RAY & WINDER. - Wax Extractors for sale. For particulars, address, Cincinnati, Ohio.

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Pure queens, tested in my apiary, \$5.00.

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Passenger Trains will Leave Indianapolis, and arrive at points named below as fol-

STATIONS.	No. 4.	No. 6.
Indianapolis	10:10 a m	*7:55 pm
Muncie		10:12 p m
Fort Wayne		
Union	44 48	11:29 p m
Dayton	A STATE OF THE STA	
Bellefontaine		1:46 a m
Crestline	40.00	4:20 a m
Cleveland		*7:30 a m
Buffalo		2:00 p n
Niagara Falls	10:10 a m	4:30 pm
Rochester		5:20p m
Albany		1:30 a m
Boston		11:00 a m
New York City		6:40 a n
Indianapolis	10·10 a m	*7:55 p m
Sidney		12:52 a n
Toledo		
Detroit		
Crestline		4:20 a m
Pittsburg		*12:10 pm
Harrisburg		10:35 pm
Baltimore	. 3:05 p m	2:30 a m
Washington		5:50 a m
Philadelphia		
New York City		

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All trains leave Indianapolis daily, except Sundays.

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Ask for tickets over the "Bee Line," via. Crestline.

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County rights, from ... \$40 to \$400
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One sample Hive and Farm Right 10
One Hive to those wishing to try it. 5

Send for circular and price list.

Italian Bees and Pure Tested Queens.

For full colon				φ2U
with right	105 111	Triampi	TILLY C,	25
For single tes	ted Q	neen in 1	lay	6
For 6	6.	"		30
For single	66	June d	& July	5
For 6	66	"	"	25
For 12	"	66	44	40
For single	66	Aug. &	Sep't.	4
For 6	66	"		20
For 12	66	66	46	36

All from the latest importations. Purity and safe arrival guaranteed. Send for circular. I also give a premium to each customer. Addresses:

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Cottage Hive.

PATENTED AUGUST 13, 1872.

As its name indicates, it is a perfect cottage in form, is 24 x 16 inches, with pro-jecting roof, is 33 inches high, formed by two sec-tions, the base containing broad chambers, the upper section for surplus honey boxes or sash, protecting comb or brood from extra heat in summer and cold in winter; a secure place for feeding weak colonies.

I make my hive proper 13 x 12 inches within the base. A complete tight box formed of twelve movable tight-fitting, open - bottom sash, with triangular crossbar, about central, from top to bottom, containing brood chambers 2,232 cubic inches of stuff 13/8 inches wide, and



3/8 inch thick, with end boards and wedges of 7/8 inch stuff, division boards

Inch thick, close fitting bottom.

In the use of this division board you can winter two colonies, each being separate, yet retaining the benefit of the usual heat of both. By division boards each apartment may be separated in two when needed for queen breeding, to raise four queens in the one Cottage. The floor of the Cottage inclines forward three inches to the foot, and is the bottom of the hive proper, and is seally kent close to the foot, and is the proper a lighting board at an angle of easily kept clean, terminating outside in front a lighting board at an angle of about 35°, four inches wide.

The Cottage proper is made of one-inch lumber dressed to seven-eighths. The hive proper so formed as to leave a dead air chamber of 864 cubic inches around it within the base section, and the entire space contained in the upper section; ventilation spaces 36 by 7 inches through the top of each frame, so that ventilation is complete when colonies are divided, thus giving bee-keepers the greatest possible control of the combs, the best facilities for artificial swarming, the greatest room for the application of surplus honey boxes or frames, with least expense of animal heat, and presents the greatest provision for comfortable and economical wintering on summmer stands,

which seems to find favor with most experienced bee-keepers.

An important feature in my claim: The end-boards and wedges by which
my hive can be adjusted suit any size colony, however weak; capable of an increase of size at any time without disturbing the colony, and affording the

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Queen City Apiary.

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For extracting Pure Honey from old or new Combs, without breaking or injuring them, which are afterward returned to the Hive to be again refilled by the Bees.

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And the best of satisfaction is given.

Get the Latest! Get the Best! GET THE LAST!

Our New Honey Extractor No. 3.



The

QUEEN CITY.

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We present bee-keepers a new Extractor, with Stationary Can, with Metallic Revolving Comb Basket, geared three to one under the machine, entirely out of the way. The can is open at the top, and free for rapid operation; will extract the largest combs as well as the smallest, and has a lid to cover. It is noiseless, and runs easy. This will be the favorite Stationary-Can Honey Extractor.



We also present a

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Which we have found, from experience, to be far superior to any straight blade now in use for uncaping for the Extractor. Many combs have depressions that a straight blade will not uncap. This balle is equally good for perfect or imperfect combs.

For further information send three-cent stamp for our twenty-four page Illustrated Circular and Aplarian Supply Price List of Honey Extractors and Knives, Wax Extractors, See Hives, Glass Honey and Labels, Glass Honey Boxes, Bee Veils; Rubber Gloves, Alsike and White Clover Seed, Straw Mals and Blankets, Safety Queen Cages, Imported and Home-bred **Pure** Italian Queens; also, Pure Egyptian Queens, from last year's importation.

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