



# LIBRARIES

UNIVERSITY OF WISCONSIN-MADISON

## National bee journal. Vol. III, No.5 March 1, 1872

Indianapolis, Indiana: Moon and Schofield, March 1, 1872

<https://digital.library.wisc.edu/1711.dl/7UGQJF4GQZU4L8L>

<http://rightsstatements.org/vocab/NKC/1.0/>

For information on re-use see:

<http://digital.library.wisc.edu/1711.dl/Copyright>

The libraries provide public access to a wide range of material, including online exhibits, digitized collections, archival finding aids, our catalog, online articles, and a growing range of materials in many media.

When possible, we provide rights information in catalog records, finding aids, and other metadata that accompanies collections or items. However, it is always the user's obligation to evaluate copyright and rights issues in light of their own use.

THE  
NATIONAL  
BEE JOURNAL.

SEMI-MONTHLY.

MOON & SCHOFIELD, Publishers,

Indianapolis, - - - - - Indiana.

CIRCULATION LARGE, ADVERTISING CHEAP, SPECIMEN COPY FREE.

OFFICE: Tilford's Block, Corner of Meridian and Circle Streets.

*Vol. III.*

*MARCH 1, 1872.*

*No. 5.*

# INDEX.

Propositions .....	129	Experience of a Beginner .....	137
Reply to Mrs. Anna Martin .....	130	Good Locations for Apiaries—Artificial	
Letter from Massachusetts .....	131	Swarming, Etc. ....	138
Matters and Things in General .....	132	From the Far West.....	141
Side Gathering Hives .....	133	The Drone Question—Reply to Bohrer..	142
Forced Queens .....	135	Why Do Bees Go to the Woods? .....	146
That Mystery .....	137	Apiculture .....	147

EDITORIAL .....

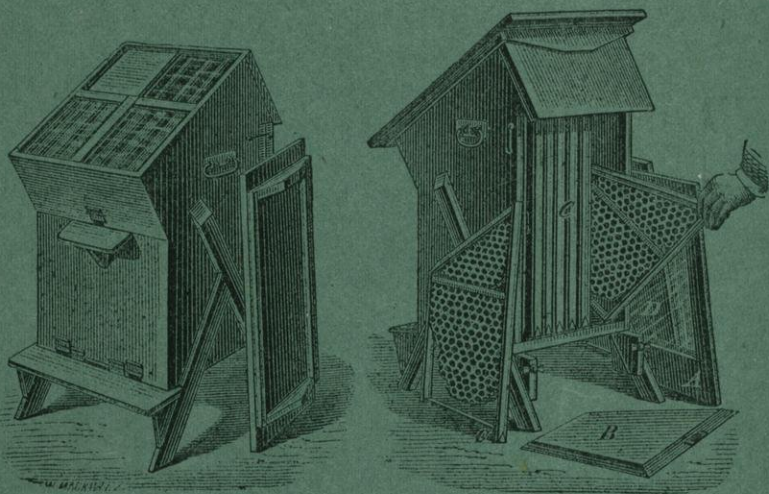
ADVERTISEMENTS .....

## TERMS:

Two Dollars Per Annum.

Single Copies, Fifteen Cents.

# THE QUEEN BEE HIVE



The above Engravings represent THE QUEEN BEE HIVE, patented August 10th 1869, by THOS. ATKINSON, of Memphis, Tenn., and acknowledged by all who have used it, to know the practical workings of this superior Hive, to be the *greatest improvement of the age*.

Some of the advantages claimed in this Hive are: 1st, Simplicity of construction and cheapness. 2d, Ease of access to the brood frames (C in engraving), without having to remove the cover, surplus frames or honey boxes, the brood frames being removed from the back of the hive, without, in the least, injuring the combs or disturbing the working of the bees. 3d, Perfect ventilation, winter and summer, and security from sudden changes of temperature, having inner movable sides (B in engraving), making double sides with air chambers between. Also, when said sides are drawn out gives ample room to remove the frames (C), without the least injury to the combs, let them be ever so wavy or crooked. The Hive is enclosed by two doors, the one glass (A), for observation, and can be placed anywhere before the frames, so as only to expose a portion of the Hive at a time; the other door is plain, thus making the back of the Hive also double. 4th, The top used for surplus honey can have four honey boxes, 6x8 inches and 5½ inches deep, or two honey boxes and eight surplus frames, 8x5½, or sixteen surplus frames can be used, with four pieces of glass to cover the whole to keep the hive warm and tight, and are easily removed when the whole or a part of the frames are filled with honey, either for market, or to be emptied by the mel-extractor, and the combs returned to the hive for refilling, making a great saving in the time of the bees making new comb, when they should be kept busy gathering honey. 5th, The best and most roomy arrangement for fertilizing the queen. 6th, Adaptation to the wants and instincts of the bees. 7th, Perfect artificial swarming arrangements. (C showing the frames as turned out and removed.) Every section or frame is free, independent, movable and self-adjusting, all the same pattern, and will fit any Hive. 8th, Economy of animal heat. Before winter the surplus frames or honey boxes are removed and the space filled up with dry corn cobs or cut hay to absorb the moisture from the bees, thus making a perfect Hive for wintering out doors. 9th, In a word, all the advantages of any or all other movable comb hives, especially as regards the building straight combs. The cross-bars are so arranged as certain to prevent the bees building across the hive; and to corroborate this statement, we would refer inquirers to disinterested parties who have used the Hive.

THE QUEEN BEE HIVE will prevent bees from swarming by removing a few frames into a new hive, and by this process of artificial swarming, the colonies are rapidly and successfully increased. The Queen Bee Hive has met with unparalleled success, and the most unqualified recommendations are offered; yet the only recommendations we desire to offer are the merits of the Hive itself. Yet it may not be amiss to state that the Queen Bee Hive took the first premiums at the Indiana State and County Fairs held at Indianapolis; and at the great fair held in St. Louis, Mo.; also several other State and County Fairs where it has been exhibited.

Territory and Rights in the United States for sale by Atkinson & Barber, the undersigned, except the State of Ohio, which is under the control of Parker & Barkley, Odd Fellows' Hall, Indianapolis, Ind.

We are rapidly selling Hives, Rights and Territory, as follows: Sample Hives and Personal Right, \$10. Township Right \$50 to \$100. Counties, \$200 to \$500.

For circulars and further information address

**ATKINSON & BARBER,**

Office Corner Tennessee and St. Clair Streets,

**Indianapolis, Ind.**

Or southwest corner 4th and Myrtle Streets, St. LOUIS Mo.

Agents wanted to canvass the United States for the above Hive. Terms liberal.

THE  
National Bee Journal.

DEVOTED TO THE CULTURE OF THE HONEY-BEE.

Vol. III.

MARCH 1, 1872.

No. 3.

[For the National Bee Journal.]

**PROPOSITIONS.**

*Messrs. Editors* :—I will be looked upon by many of your readers as an old foggy, I have no doubt, having the frosts of sixty-five winters on my head, and never having scribbled for a bee journal before this. I have kept bees for over forty years in the old style, but for eight years have taken quite an interest in apiculture, and watched the discussions on the "Drone Question" with very great interest. I would ask the Doctors on this subject why it is that the drone progeny of a pure Italian queen, fertilized by a black drone, and her drone mating with other pure Italian queens, will produce workers, some black, some one band and some two bands? This has been my luck and experience.

I see in the 1st of January number of the JOURNAL, in your notice of the proceedings of the North American Bee Keepers' Association, that Mr. J. W. Hosmer, of Minnesota, was the lion of the whole tribe of bee keepers, in his making his banter for the sale of his one hundred and eight stocks of bees, etc. I do not deem it advisable for one of my age to get into the bee business so extensively, or Mr. Hosmer would certainly meet with one purchaser for his one hundred and eight colonies of bees, and I hope some one will take them on his terms, that he may make the trial; that he, and the whole bee fraternity, both new and old hands, may not get their notions too large on the honey-gathering question. Mr. Hosmer certainly does not expect in this banter to feed his bees on syrups, and by his little pets passing it

through their honey sacks call it honey. Certainly no jury of bee keepers would approve of this or say this is honey.

I see in another part of your notice of the proceedings of the North American Bee Keepers' Association, that a Mr. Furman makes a banter to give any man five hundred dollars that will have fifty queens fertilized in confinement in his apiary next season. If this is the Mr. Furman, of Cedar Rapids, Iowa, I had the pleasure of meeting him at the Iowa State Fair last September, where I was with the newly invented bee hive, (the Triumph), for which I am agent, and have adopted it myself, having tested it for two years, and transferred my bees into it, and use no other; laying all others aside, among them the Langstroth, Quinby and Adair, and I am sure that any bee keeper after a trial of the Triumph would be certain to do as I have done. Now if Bro. Furman could make an offer sufficient for me to leave home and remain with him for two months, he should certainly have his fifty queens fertilized in confinement, and I have his money; but if he will come over to our place next June I can convince him that he can do the job for himself and save the money he offers.

WM. M. KING.

Champaign City, Ill., Jan. 30, 1872.

---

[For the National Bee Journal.]

### REPLY TO MRS. ANNA MARTIN.

*Messrs. Editors:*—In answer to Mrs. Martin, I will say, do not know as I would advise any one to prevent swarming (as I did) till after the basswood and white clover season. I succeeded last season in getting a large yield of the best honey, and my swarms were strong all the season. After the white clover season had passed I divided them, and all the swarms, old and new, filled up rapidly with buckwheat honey, and also with brood. As an experiment it was a success. I might try it again and fail. I have learned not to jump at conclusions, because I succeeded in one experiment.

My plan was this: As soon as the swarming season arrived, I and my wife "went through" my swarms and cut out all the queen cells, saving the best ones, and putting them into nucleus hives, so as to have a supply of queens on hand when I commenced dividing. I repeated the process as often as once in ten days. The coming season I shall try another plan. I shall put a "non-swarmer attachment" around each hive, and clip the wings of each queen, which will prevent the queen leaving, and

will do away with the necessity of examining my swarms every ten days, as I can not always attend to them in time. Mrs. Tupper and Mr. Mitchell each advertise a non-swarmer attachment, which I have no doubt are a good thing. If you extract your honey every two, three or five days—you can, of course, examine your combs and remove queen cells at the same time. If you do not extract your honey a non-swarmer attachment is indispensable.

I have lost a great many bees this winter—that is, a great many die in each hive—more than I ever saw before. I extract honey rather late, still the bees have an abundance of honey to live on, but I have thought it might be too thin. It may be possible that this extracting business may be carried to excess, as well as to success. We are all apt to run into extremes in this business of bee culture. Some of my neighbors divided too much in the first part of the season, and had to feed. In the fall, when honey was abundant in the field, they extracted too much, and the result is they have lost more than half their swarms. Experience is a dear teacher, but she teaches truly, and we must learn to “make haste slowly.” My advice to new beginners is to experiment on a small scale. Perhaps you are not a new beginner, but I know of some who are, and who may profit by this advice.

I am willing at any time to answer questions, as I have, myself, learned a great deal by reading the answers to questions asked by others, and perhaps my answers to your questions may interest other readers as well as yourself.

Respectfully yours,

JOHN M. FOLLETT.

---

[For the National Bee Journal.]

#### LETTER FROM MASSACHUSETTS.

*Messrs. Editors:*—A letter occasionally from New England may be of interest to some of your readers. Of course we Massachusetts bee keepers can not tell such “big” bee stories as some of you Western “beeists” do. Take, for instance, the one told by Mr. Hosmer, of Minnesota. I am not agoing to say that I do not believe all he says, on the contrary I see no reason to disbelieve it. I see no reason why Mr. Hosmer’s bees will not store as much honey as he says they will. If he lives in a good honey district, where forage is abundant from April to October, and his bees are well cared for, they should do as well as he intimates in storing honey, all things being favorable. A strong stock of bees

will gather honey at a rapid rate when the weather is favorable.

Of course there are many days during the season when honey will not be gathered at all, but then the bees lose no time on stormy days, as they continue work in the hive the same as they do at night.

It is seldom that we New Englanders have a good honey season, we have two poor years, and there is a prospect of a third one. We are dependent mostly on white clover for our honey, and as the last two seasons have been very dry with us, and as no snow covered and protected, this winter, what little grass was not killed out by the drouth, I am of the opinion that the prospect is poor for 1872.

The 12th of July is the latest I ever knew bees to work in surplus boxes here, and not one season in five do they gather any honey later than the 1st of July. One trouble with us is living so near the salt water. Along the coast the wind from the south, south-east and east comes directly off the ocean, and a cold wind it is, too, during the months of May and June. I well remember during the month of May when the wind was from the north-east for twenty-six days—of course our bees did nothing all this time.

We have much to discourage, and little to encourage bee culture here along the New England coast. Yours,

H. ALLEY.

Wenham, Mass.

---

[For the National Bee Journal.]

### **MATTERS AND THINGS IN GENERAL.**

*Messrs. Editors* :—Please excuse me for troubling you ; but I have been reading so much bee literature lately, that I am afraid I shall burst unless I ventilate a little.

In the first place then, this has been one of the worst seasons for bees known for a long time in this place. The forepart of the season was very dry, the few scorched and withered blossoms yielded but little honey, and when the buckwheat came in blossom, we were visited by a severe hail storm that beat everything in the shape of a blossom into the ground. So the poor bees were left nearly destitute of everything to work with ; besides, thousands of bees were destroyed by the hail. Some of the hives appeared to be half depopulated, and the consequence was that some of the young swarms did not build more than three or four pieces of comb, of about four inches square.

Mr. Hosmer, of Minnesota, please do not sell your 118 stocks of bees, but hold on to them until spring, and then send and get Mr. Mitchell; he will make 100 stands out of each one of them, and then you will have 11,800 stands of bees, who will produce, according to your assertion, 11,800,000 pounds of honey, sufficient to supply all the markets in the known world with honey, New Brunswick and Alaska thrown in. Robert Burns says:

"Some books are lies from end to end,  
And some great lies were never penned."

I think if Burns had lived in these days, those lines would not have been written.

Well, I have been experimenting a little with my bees the past two years, trying to raise a female drone, and have succeeded at last. When the impregnating process began, having no cage at hand, I made one in the following manner (which, I hope, no one will get patented). Opposite my house is a five acre lot with a large tree in the center; I procured a musquito bar, spread it over the top of the tree, and fastened it to the fence on either side. As I intended to raise a new kind of bees, I caught the largest humble bee I could find, and at three o'clock in the afternoon I liberated it and a queen in the cage. The next morning I went to see how they were getting along, and after some search found the queen on the tree, about two feet from the ground, the humble bee dead on the ground; a sure sign of impregnation, so say some. Now I am going to queen raising of this new variety of bees. All orders for queens, accompanied by the cash, will be thankfully received, and the money duly appropriated.

V. AKER.

Wanatah, Laporte Co., Ind.

---

[For the National Bee Journal.]

### SIDE GATHERING HIVES.

---

*Messrs. Editors:*—On page 36, January number of JOURNAL, W. R. King gives a pretty full and accurate account of the "Triumph." What I wish to say further, is as to the merits of the hive as a *side gathering* hive.

Since the appearance of my article on *hives* in January number of the JOURNAL, I have received numerous letters asking my experience with side gathering hives. Many of the writers saying they had tried Quinby's, Alley's, Hazel's and many others, but could never get as much surplus from the sides as on top of

the hive. This has been my own experience with a great many hives, except Alley's, of which I have never tried, and this is the hive that most of the writers say they got the most surplus from. I have tried Quinby's Non-swarmers and a great many side gatherers, two of my own construction, and I think I have found the secret principle of side gatherers. Bees can not generate heat sufficient in side boxes to build comb only in the hottest weather, unless such boxes are inside the hive, and within half an inch of the outside combs; and as more heat will be generated from the ends of short comb, such as Alley's, I think Alley is right in the way he has constructed his hive; but the "Triumph" is so constructed as for all surplus at sides to be stored right in the body of the hive, the queen only being by an ingenious device separated from the sides and confined to her own quarters. The two thin perforated partition boards that separate or confine the queen to her own chamber, the brood apartment, can be taken out in height of the honey harvest, and the extractor used on the same principle of Gallup's new hive, from which he says he got about eight hundred pounds of surplus honey from one hive last season. So far as I can understand his description of his hive, I see little, if any, difference in the principle, and very little, if any, in the size and make. To a person who wants his surplus stored in boxes, I would prefer placing them on top of the "Triumph," as the sides not being movable it would be a little inconvenient to set them down in the sides, and when they were ready to take off, Alley's hive would be the most convenient for that purpose. My objection to Quinby's Non-swarmers is the great trouble to handle it. The top boxes were always filled first. I constructed one on the same principle and size of Quinby's, only leaving out the tins, and hanging the frames on rabbits, making it very easy to handle either at sides or top. From this hive I have obtained twice as much surplus, both at top and sides, as from Quinby's, and it is my belief that had I constructed it so as for the boxes to set against the ends instead of the sides of frame, it would have done still better. But, as I said before, the surplus in the sides of the "Triumph" being stored in frames and in the main body of the hive, it makes no difference how the frames hang. They are hung just right the way they are.

All who wish a description of the hive are referred to page 36, January number of the JOURNAL. It is, as I have said before, the best ventilated hive I ever saw, and by means of a drawer, the best self-cleaner I ever saw.

Respectfully,

January 27, 1872.

R. M. ARGO.

[For the National Bee Journal.]

**FORCED QUEENS.**

In looking over the JOURNALS I find on page 200, Vol. 2, No. 9, Mr. J. M. Follett says, "I do not think as Gallup does on this forced queen matter," etc. Now, Mr. Editor, I don't know how he even knew what I thought on the subject, as I certainly had not given my views to the public on that subject up to the date of his article. I had then only been leading out Mr. Benedict and others, to get their views on the subject before giving my own in full. Now I am not a betting character, and never was, but, Mr. Editor, I'll bet my old hat, the one what's got the ear-loppers on, or the one what's got the hole in the top to let the gas out (and he may take his choice) that when he thoroughly understands the subject, or what I think about it, that we shall not disagree, and I will allow him to be the judge. Some twelve or thirteen years ago I commenced making artificial swarms, raising forced queens, etc. I then lived in Wisconsin, in a locality where my bees had to be fed or starve, from about the 15th of June up to the first of August, consequently swarming would not take place until about the middle of August, if left to themselves. During this scarce time in June and July I fed very sparingly, and not enough to keep the queen breeding but a trifle.—You see that I showed ignorance in so doing.—About the middle of July I used to force out my swarms by smoke and drumming. This left the old swarm to raise their queen or go without, (I then had no movable comb hives), and you will readily see this was forcing them to raise queens at a time when they were gathering no forage to amount to anything, consequently had but very little brood, if any. I fed the young swarms freely, in order to have them build comb, etc. Now you will readily see that this forcing the bees to raise queens when they had but very little brood, and but very few nursing bees—for a large proportion of them had become too far advanced in age; also were gathering scarcely any forage—was artificial and unnatural with a vengeance. The consequence was that, with three seasons of this practice, I almost entirely ruined my apiary. The queens were so unprolific and worthless that they could not keep up the strength of the swarm, let alone increase and surplus. A neighbor started in on the same plan and ruined his apiary in the same manner. We consulted together and came to the hasty and erroneous conclusion that all artificial or forced queens were worthless. I, also, at that time, went into raising artificial queens, in nuclei hives

by taking a small piece of comb containing eggs and brood, fastening it in the top of a Dutch hive; brushing off old bees from the outside of the hive, to stock those nuclei, etc. Here you can see that all was wrong again. I succeeded in raising a very few small, inferior and worthless queens, but it was up-hill business, and this confirmed the idea that all unnatural or forced queens were worthless; but after studying the matter over I was not exactly satisfied with this conclusion, for I could not think that the queen laid a different egg, especially to raise a queen from, so I fell into this train of reasoning: What is the condition of a stock in natural swarming, and natural queen raising? They have abundance of bees of all ages; abundance of brood in all stages; abundance of nursing bees, and these nurses are preparing large quantities of food, or jelly, for the larvæ. They are, also, gathering abundance of forage. I then went into the experimenting business again, and complied with the above requisites, that is, I attended to the stimulating for breeding and stimulated abundantly, or did not commence queen rearing until the bees were in a natural condition for swarming—warmth is also one of the above requisites—and I then succeeded in raising just as good queens as I ever had at swarming time.

Now any quantity of queen breeders send out queens reared on the unnatural principle, and the consequence is their queens are worthless in one sense, and people getting such queens, and comparing the products of their stocks with black bees in the same yards, condemn the Italian, and say they are not as good as the blacks, etc. They, not knowing, condemn the race, instead of the manner of raising the queens.

You will also see—page 202—“Natural vs. Forced Queens,” by M. C. Hester; read said article carefully and you will discover that there is but very little chance to get up a fight between Hester and Gallup on the forced queen theory. Also see—page 205, same Vol. and No.—an article by Mr. Doolittle, where he raised a second crop of queens from one stock, and you may expect the same results every time. He says they were the smallest lot of queens he ever raised in a full stock. You will readily see that this stock was in an unnatural condition for queen raising.

On page 206, Mr. D. asks who will solve the mystery? No mystery at all, but is a very common occurrence—*two queens in a hive*. Now, friend Follet, who is to have the old hat, you or Gallup.

E. GALLUP.

---

[For the National Bee Journal.]**THAT MYSTERY.**

*Messrs. Editors:*—On page 75, of JOURNAL for February 1st, Mr. Owen says in substance, that he introduced an Italian queen about the first of August, and a few weeks subsequently found no young bees, and but little brood in the hive; that what little brood there was did not hatch, and that he returned the queen to the party from whom he obtained her, and exchanged for another, which, soon after introduction, commenced laying, etc.

We have occasionally found that moving a queen from one hive to another would cause her to *cease*, and sometimes commence laying, but have generally been able to account for it upon other reasons than that of removal.

In the case of Mr. Owens, the reason for the apparent mystery was owing to a sudden scarcity of honey, commencing immediately after her introduction, and ending about the time of the exchange. It is well-known that queens will not lay when the bees are not gathering honey, especially in the latter part of the season, therefore his queen ceased laying, and the bees cleaned out the cells. The same instinct that influences the workers to kill off the drones, after their usefulness ceases, to save their stores, leads them to refuse to increase their forces when no honey can be obtained.

I am pleased to notice the steady improvement in the JOURNAL both in material and quality of matter.

Yours,

GEO. S. SILSBY.

Winterport, Me., Feb. 16, 1872.

---

[For the National Bee Journal.]**EXPERIENCE OF A BEGINNER.**

*Messrs. Editors:*—I have for some time contemplated giving some of my experience as a beginner in bee keeping, but a multiplicity of cares and duties have prevented.

After a year's consideration and study of books and papers on bee keeping, I began by purchasing a town-right, in the State of Minnesota, for a patent, movable comb bee hive, also took an agency for the same, and went to work manufacturing and selling hives in order to get a start. This was early in the spring of 1869. In May I had quite a number of hives on hand, but was obliged to peddle them out, taking such pay as I could get, and often waiting months for it at that. I succeeded, however, in

obtaining two swarms of bees at twelve dollars each, paying in hives, and, finding it rather up-hill work, I accepted a situation in a printing office, with the stipulation that I should have a portion of my time to attend to my outside business, and my bees that I kept in the rear of the office. During the season I transferred about twenty stocks for others; made and sold forty frame hives; sold some dozen books and rights; increased my two stocks to six, all of which wintered, and I had several pounds of surplus honey.

The following spring, desiring to enter the printing business in the city, where, as I then supposed, I could not keep them, I sold them for eighty-five dollars, a trifle over fourteen dollars per swarm. After several months, my health failing, I sold out my business and returned to Maine, my native State, where I resolved to again take up bee keeping as my chosen pursuit.

In another number I will give some of my experience in bee keeping under difficulties, "away down in Maine," among the fogies, granite rocks, pine trees, and icebergs.

I. M. HATCH.

Holton, Maine, Feb. 12.

---

[For the National Bee Journal.]

### GOOD LOCATIONS FOR APIARIES—ARTIFICIAL SWARMING, Etc.

*Messrs. Editors:*—I have been very much interested in your correspondents from California and Kansas, and would be pleased to hear more from different parts of those States; also, from Colorado.

I have been frequently asked by correspondents, where would be a good location for an apiary. I think those letters answer the questions for me; and to give those searching for such information a wider range, I will add a few

#### EXTRACTS FROM LETTERS FROM TEXAS.

As I take the liberty of sending these extracts without the consent of the writer, I will do like the *B. K. Journal*, "give his county and state only," lest I should be the cause of bringing to him a host of letters that he, perhaps, would not like to take time, to say nothing of the expense of postage, etc., to answer.

1st. \* \* \* "Can you tell me how to keep queens from going up in the honey-boxes and depositing eggs?"

2d. \* \* \* "We are using the American Hive. How do you think they suit our climate?" \* \* \*

3d. "We, (myself, wife and daughter,) are enthusiasts, and pioneers of improved bee culture in these parts. Want all the information we can get. \* \* \* Last spring we had twelve colonies; eight in American hives and four in box hives; one-half in good condition, and the balance barely 'made it' through the winter. \* \* We had twenty new natural swarms from eleven old ones. One failed to swarm. One from E. S. Tupper, turned off three new swarms, and stored one hundred and forty pounds surplus honey, including the three new swarms. \* \* \*

140 lbs. honey, at 20c.....	\$28 00
3 new swarms, at \$2.50 each..	7 50

Clear profits of one hive.....	\$35 50
--------------------------------	---------

We took 800 lbs. box honey, at 20c.....	\$160 00
20 new swarms, at \$2.50 each.....	50 00

Clear profits from our twelve old hives.....	\$210 00
--	----------

4th. \* \* \* "How does this compare with old bee-keepers? This is our second year in bee-keeping. \* \* \*

5th. "Whose *slinger* do you prefer or use? \* \* \*

"January 8, 1872, I saw bees bring in natural fallow. The first warm spell in this month the red elms will bloom; next come the soft maple, red bud, wild plum, wild small fruits, and a great variety of forest trees. The rattan vine is in great abundance, and fine bee forage. Our bees commence to swarm about the middle of April, and continue to swarm till the middle of June.

6th. "What is your favorite mode of artificial swarming? We have not tried it yet, but are posting up, and will try our hand next spring.

"We have not been troubled with moth this past season, but we have bee enemies to contend with that are a 'sight' worse, viz.: The largest size Dragon fly, that hovers around our bee yard by the hundreds, and destroys thousands of bees, taking them on the wing. We have four kinds of 'Asilus flies.' 'Your shade bee' described in *B. K. Journal*, is one of them. The worst of the form is a dark brown fly, (Pramachus,) one and one-quarter inches long, and is very strong. It sits upon some favorite perch, and pounces upon the little weary workers as they return loaded with honey, and again returns to the perch, and sucks out its life blood. The next worst is the 'Dasypagan.' It is a size less, with red body and a green head. They take the bees among the flowers."

Clarkesville, Red River Co., Texas.

It will be seen from the foregoing that Texas, as well as other places, has its disadvantages as well as advantages; but with all the bee enemies named by our correspondent, Texas is certainly a good location for bees as well as cattle, and is a delightful climate to live in. I say this from experience. There are many old apiarians who do not do half so well as our correspondent with only two years' experience. What will they do when they get more knowledge, a sling and all frame hives? He states, all his new swarms and four old ones are in box hives; but as this article is getting too long, I will answer, as brief as possible, his questions.

1st. Make an opening in honey board not over one-half inch wide; make honey boxes not over four inches high, and remove all cross-bars or sticks from centre of brood chamber.

2d. I would prefer a more shallow hive for Texas and other southern states; and if the slinger is to be used, make two strong hives with frames not over ten inches deep.

3d. Subscribe for all three bee journals.

4th. You have done exceedingly well for beginners and box hives. Your estimate of new swarms is too low by half. At this rate I would prefer to have a thousand stand of bees to a thousand head of cattle, even in Texas.

5th. I use Gray & Winder's slinger; it is very good, though there may be others as good that I have not seen. I am satisfied with it.

6th. I practice many ways of artificial swarming, generally governed by circumstances. A good way for beginners is to take one frame each from nine strong hives, placing them in a new hive, brushing the bees all back into their own hive, and put empty frames instead of those removed, and one empty one in new hive. Close all springs in new hive. Be sure there are no bees in it. Then put a young *fertile* queen in at top of hive. Remove a tenth hive to a new stand, and place this new hive on stand of one removed, and open entrance so one bee can pass at a time, and as the bees return full of honey from the fields, finding things so altered, will enter and accept of the new queen. This is a good way to introduce Italian queens.

In about a week repeat the process, removing another hive, till you have made as many swarms as you desire or the season will admit of. The frames removed should be taken from about centre of hive so as to get those that have brood in all stages.

It is *very* important to have a laying queen to supply all swarms with. In natural swarming the new queen should be

put in the old hive after the swarm issues. There are various other ways to make artificial swarms, but this article is too long to give them at present.

H. NESBIT.

Cynthiana, Ky., February 5, 1872.

---

[For the National Bee Journal.]

### FROM THE FAR WEST.

*Messrs. Editors:*—I am again in receipt of the BEE JOURNAL. Glad to receive it.

In numbers for 11th month 15th, and 12th month, my friend, Dr. Davis, says, "Why do you think that *we*, who are *less* prominent and 'noted,' will be satisfied with the results of an age of science, stuck, or hung, over a microscope. Shall we not grow scientific with them?" No, my dear Doctor, God forbid that *we* ever become so full of virus, that we endanger the bee keeping brotherhood. We will, undoubtedly, rejoice when we begin to see the silvery lining to that fatherly cloud, which at present overhangs the apicultural horizon. We need learn to strive for that knowledge which render those of the fraternity so troublesome and contentious. We must think that possibly others have feelings similar to our own, while the *noted ones* are so "prominent" in the matter, but *we must* think, and feel, that while in a field with boundaries yet unknown, harmony should prevail.

If *we* were to become scientific and feel that the finishing touch had been applied, we might possibly become restless, also. As it is, Doctor, let us congratulate ourselves, feeling that we are with the majority, and more fortunate than those of our brothers who are so grievously tormented with spirit of contention and nativity.

When reading the JOURNAL I have frequently seen the statements by different correspondents about the many bee hives patented, before the public. If the statements are correct, Doctor, I shall say that I do not consider the number of patents on the Langstroth hive confined to a few other hives. I have not been able to find any movable comb hive, patented in the United States, to be superior to the Langstroth hive, and for that reason say, without fear, that in nearly every instance, when a new hive has been brought before the public with its claims *superior* to all others in existence, that our friend, L. L. Langstroth, has been deprived of the privilege of just that much of what should have been reaped by him. I say friend, because Langstroth has done much to make bee keeping a business prolific of profit and pleas-

ure, as much so as any man in the country. Langstroth was the first to bring before the public the movable comb bee hive, with its many advantages over the box hive.

You, who style yourselves professors, pioneers and veterans in the cause, I wish to ask you in what extent might bee keeping now be found in this country, were it not for the light that Mr. Langstroth has bestowed upon this people? How many of your publications would have been made without the aid of his publication? How many of your patent hives would the well-meaning and unsuspecting farmers in our country purchase if they knew so little of the thing exhibited, you could make them a legal right to? What would many of the patent hives, with which you are swindling the public, be worth when deprived of the features belonging to the Langstroth hive? When swarming the country with a model hive, do you tell the people upon what particular part of the celebrated fabric your patent was obtained? Knowing that you will not feel like answering the questions, I will say for you now, what would a moth trap sell for without the privilege of movable frames? What would any of your inventions, calculated to "revolutionize" bee culture, do without being connected with the movable frame on the Langstroth hive? I once read of a boy, who wished to skate on the ice contrary to his father's advice; he disobeyed, broke through a thin place and was drowned; and until those horned —, who bellow so ferociously, prove more conclusively that Langstroth is not the true parent of apiculture in this country, and cease trying to supersede him, before an overwhelming providence sees fit to remove them to another sphere, we need feel that you are on a very thin place in the ice.

WM. MCK. DOUGAN.

Office of the Osages, Indian Territory.

---

[For the National Bee Journal.

### THE DRONE QUESTION—REPLY TO DR. BOHRER.

Dr. Bohrer complains that I misrepresented his statement on the drone question in the *North-Western Farmer*. If I did so, it was not intentional on my part, and I would now offer the *amende honorable*.

But did I misrepresent him? Let us see. I quote his own words from the December number of that journal, on page fifty-eight:

"In a perfect and well regulated colony the queen lays the eggs from which all the inhabitants of the hive are reared, includ-

ing the queen who succeeds her. For this purpose two kinds of eggs are necessary. I have said two different kinds; this is not true as regards shape as in this particular there is no difference whatever. But the difference consists in one kind being impregnated by the seminal fluid of the drone, *whilst the other contains no fertile properties except such as are given them by the queen herself.* \* \* \* This, then, is the difference: a drone egg is not impregnated, whilst the worker's eggs are."

The italics are mine.

These are the statements, with others of kindred nature, used by Dr. B., in connection with them, to which I alluded in my article. I thought, insomuch as many of the readers of the *Farmer* were not well versed in the science of apiculture, that Dr. B. should not thus have attempted, without any qualification, to impose upon them, as an established truth, a theory which is, to say the least of it, very questionable. In protesting against his conduct in this matter, I stated that he had asserted, "positively and unqualifiedly, that the fertilization of the queen does not affect her drone progeny."

I confess that I did not quote his *language*, nor did I profess to. I only aimed to give the substance of his *idea*, and I was obtuse enough to think I had done so; and I am yet unable to see the "point" of substantial difference between his statement in the *Farmer* and my version of it in the NATIONAL. If the eggs "contain no fertile properties, except such as are given them by the queen herself," how, in the name of reason, can the drones hatched from those eggs be "affected" by the "fertilization of the queen?" Is not our expression equivalent to the other? It seems to me that his words and mine express the same idea that the drone inherits, *exclusively*, the blood of the queen mother.

The difference between these two statements, I conceive, is about as important as that between *tweedledee* and *tweedledum*.

The learned Doctor seems to be as punctilious in this matter as was the devout old sister who thought it sacrilege to permit the *fiddle* to be played in her church, but had no objections to the use of the *violin*. The gist of his complaint, when we get at it, is that I did not quote his language verbatim.

The chivalrous Doctor appears to be "spoiling for a fight" with somebody on this drone question. He evidently feels that he is the "best man in town." I have but little of the pugilistic in my temperament. I am simply in search of more light on this and on many other abstruse apicultural questions. I do not write in the spirit of controversy, nor have I any pet theory to

defend. My "pet" is the honey bee, and what little I know about it I am ready to give to the public; what I don't know, I am willing and anxious to learn from others.

Dr. B. will understand from this that I do not propose to fit myself for a controversy with him or any one else on this "knotty question." I claim the privilege, however, at the risk of being stigmatized by the learned Doctor, as "not well informed," of *seriously doubting* the truth of the theory, that the "fertilization of the queen does not affect her progeny;" or, to put it according to his own words, that the drone eggs "contain no fertile properties except such as are given them by the queen herself." I believe this to be a most mischievous theory; that it is at the bottom of all our trouble in keeping up the purity of the Italian bee in this country. If our apiarists could be prevailed on to abandon this theory, and to breed their bees as they would any other stock, recognizing the universal law, that the progeny partakes of both the maternal and paternal nature, then, I think, there would be ground for the opinion that the Italians are a "hybrid from a cross between the Egyptian bee and the common black bee;" or, that they are even "dashed with blood from some other variety."

My opinion in this matter is based upon my own experience in the apiary, corroborated by that of other bee-keepers, in whose statement of facts I have the utmost confidence.

I gave in the JOURNAL, some time since, an account of my experience on this subject; but it may not be amiss to refer to it again briefly, in this connection.

In the spring of 1870, I began to Italianize my bees. I obtained a queen whose workers were three-banded without exception, and whose queen progeny, so far as I could judge, were invariably duplicates of herself. All of my stocks, (ten in all,) excepting the one occupied by this old queen, were supplied with young queens of her brood. Only two or three of those nine young queens were purely fertilized. The only person keeping bees within two miles of my apiary, Italianized his bees the same season, from a queen apparently as pure as mine. There were very few, if any, black bees in the woods, and not over three or four within three miles of me. Now, according to the "Dzierzon," or "Pure Drone" theory, I should now had in the season of '71, nothing but pure drones, and, of course, the large proportion of very young queens should have mated purely. I had no doubt, at that time, that this would be my happy lot as I was then a firm believer in the theories of the books.

In the season of '71, I increased my stocks from fifteen, having added and Italianized five black colonies to seventy, queening all of them from the brood of my old queen, and of such of her young queens as had proven themselves pure. Now for the result. Three or four of these young queens evidently mated with black drones, many of their worker progeny having only one band, and but few then. About fifteen mated purely, their workers being invariably three-banded and of gentle disposition. The remainder, and this class embraced by far the larger part of all I raised, produced workers that might well be termed *quad-rooms*, one-fourth black blood, and from two to five per cent. of them having only two bands, the rest being well marked.

Now, by what kind of drones had this last class of queens been fertilized? If by pure Italians, whence the dash of black blood? If by blacks, why so little of the black blood visible, and how did such a large proportion of the queens meet black drones, when the Italians were so much more abundant? These are queries I can not solve consistently with the Dzierzon theory; no doubt Dr. B. can; we shall see.

The conclusion I draw from these facts, and it seems to me to be a reasonable one, was that this last named class of queens had mated with hybrid drones—drones whose maternity was pure Italian, but whose paternity was black. This conclusion may be wrong, and I most heartily wish it were; but if it be wrong, it will certainly be an easy matter for so experienced an apiarian, and so able a logician as Dr. B., to point out my error.

But those terrible "spermatozoa!" What is to be done with them? I don't know; does Dr. B.? I neither affirm nor deny what is said as to their absence or presence in the eggs of the queen, for the reason that I have no personal knowledge on the subject. Has Dr. B. such knowledge? But admitting all that is said, what does it prove? When we shall have become wise enough to comprehend the mysterious process in nature by which the pistil of the flower is fructified by contact with the pollen, and how conception results from coition of the sexes, then may we expect to be able to understand the functions of these spermatozoa, and to account for their presence or absence in the queen's eggs.

I set more value upon one fact demonstrated by practical experience in the apiary, than upon all the speculative theories that have no other basis than microscopical observations.

To my mind the most cogent argument in favor of the Dzierzon theory, is the fact that virgin queens can lay eggs, from which, what appear to be drones, are hatched. But have these bastard drones the power to fertilize queens?

Mr. Adam Grimm, whose voice is certainly potent with all opinions, in the current volume, page 146, of the *American Bee Journal*, makes this statement:

"From the five (virgin queens) which were saved, I succeeded in raising, at the lowest estimate, three thousand drones, that were flying as early as the 20th of April. I had succeeded, also, in raising more than a dozen queens hatched between the 10th and 15th of April. Every day that was warm enough for bees to fly, the queens as well as the drones, appeared to be just as lively and active in their excursions as in summer weather; and I, of course, expected that the queens would speedily become fertile. But I was doomed to disappointment. None of those queens became fertile until the 7th of May, when three of them commenced laying drone eggs, and soon appeared to be regularly fertile. *At that time, however, drones had made their appearance from common stocks also.*"

Mr. Benedict, if I am not mistaken—I write from memory—some time since in the NATIONAL, related a very similar case occurring with him. I have yet to see or hear of any reliable proof that such fecundate queens. My opinion, formed from facts and what I consider reason, is that they have no procreative powers; that this is one of the "fertile properties," which the unfertilized queen mother can not impart.

I beg pardon for this prolixity.

M. C. HESTER.

Charlestown, Ind.

---

### WHY DO BEES GO TO THE WOOD?

---

*Messrs. Editors:*—Men have different views on this point, and not dissenting from them, I will only give mine.

First, it is their nature. The ox and the horse eat grass because it is their nature. The woodchuck burrows in the ground and lives many weeks without food, because it is his nature. So with the bees. The Creator placed them in the forest, gave them a home in a hollow tree which He had prepared, and caused some other trees to be hollow to perpetuate their offspring, so that when they were too numerous in one tree, that a part might seek a home in another tree; and was doubtless many a long period

before the art of man brought them to our doors, and so when they swarm it is their nature to go to the forest, their original home; but we could prevent if we knew how to manage them. In the first place they come out and alight; they are hived, and many times the hive is where the sun shines on it, and the thermometer at ninety degrees, and the heat in the hive is so great they can not stay in it, so they come out and go to the woods, their original home.

Well, says the owner, I know the hive was clean and pure, but they had a place picked out and they would go to it, and so I thought once when I began to keep bees, but I know better now. Since that I have hived a thousand swarms, and, perhaps, twice that, within thirty years past. I always hive every swarm, and if they are too hot I can keep them cool by sprinkling the ground and the hive with cold water from the well—sometimes the second or third time. Bees sometimes find a place to go. I have known them to come out and alight, and if not taken care of will go direct to a tree; other times they go to the edge of the woods, and, I suppose, make further search. Sometimes they alight on a rail fence; if they go to the woods it is for the want of proper care.

As to this “knotty drone question,” it is rather tiresome reading—such hard words and disputing does no good. I propose that the subject be dropped, and each one report what discoveries he has made and let the facts be known.

There was much wisdom displayed in creating the honey bee when the All-Wise saw fit to create one female for the mother, and had it not been necessary there would have been but one drone, but it was founded on wisdom to have a few drones, and the majority of them workers.

A. WILSON.

*Marcelus, N. Y., Feb. 9, 1872.*

---

### APICULTURE.

---

*Meeting of the Bee Keepers—Formation of a State Association—The Constitution—Discussions, Etc.*

INDIANAPOLIS, IND., Feb. 24, 1872.

In response to a call for a State Convention of apiarists, to be held in this city, about thirty gentlemen from various parts of the State interested in the business of bee keeping, met in the Senate Chamber yesterday afternoon, and effected a temporary organization by calling Dr. G. Bohrer, of Hamilton county, to the chair, and appointing Mr. A. J. Pope, of Marion, Secretary.

The chairman stated the object of the meeting to be the formation of a State organization in the interests of apiculture.

A motion being adopted for the appointment of a committee to draft constitution and by-laws, the Chair appointed N. C. Mitchell, Dr. Wright and E. G. Holladay.

During the absence of the Committee, Dr. Bohrer entertained the assembly with a relation of his experience this winter, touching the malady which wrought such great destruction among the bees in this State. Out of eighty-eight colonies put into winter quarters in good condition, he has lost fifty-two. They commenced dying at an early day in the winter.

The Committee on Constitution reported the following, which was adopted by sections;

#### CONSTITUTION.

ARTICLE I. This Society shall be known as the Indiana State Apiarian Association.

ART. II. The object of this Association shall be the improvement of its members in apiarian science, through mutual interchange of experience in the apiary; encouraging the publication of journals and periodicals in disseminating information touching the wants and instincts of the honey bee, and its home, and hereby enhance the productiveness of apiarian industry.

ART. III. Any person of good, moral character may become a member of this Association, by paying an initiation fee of one dollar; women free. Any person may become an honorary member by the unanimous vote of this Association, after being regularly proposed.

ART. IV. The officers of this Association shall consist of a President, three Vice-Presidents, a Secretary and a Treasurer, each of whom shall be elected by ballot; and their duties shall be the same as are generally required of such officers in similar societies.

ART. V. No additions, alterations or amendments shall be made to this constitution without a vote of two-thirds of the members present; and no motion to amend shall be acted upon the same meeting at which it is proposed.

#### BY-LAWS.

ARTICLE I. *Section 1.* This Association shall meet semi-annually. Its spring session shall be held on the first Wednesday of March, annually, at the city of Indianapolis. Its fall session shall be held at the place where, and the time when, the State Agricultural Fair is held.

*Sec. 2.* The annual meeting on the first Wednesday of March shall be in part for the election of officer, and to hear the reports of the Secretary and Treasurer.

*Sec. 3.* Special meetings may be called by the President at the written request of five members.

ART. II. All persons (except women) received into this Association shall pay the sum of one dollar on signing the Constitution.

ART. III. Any member who shall refuse to conform to the Constitution and By-Laws, or shall be guilty of repeated disorderly conduct, shall be subject to expulsion by a vote of two-thirds of the members present, but no motion to expel a member shall be acted upon at the same meeting at which it is offered.

ARTICLE IV. The same rule shall apply to amendments to the by-laws as to the constitution.

Sec. 2. The officers first elected at the organization of this association shall hold their offices until the first Wednesday in March, 1873, or until their successors are elected.

The meeting then proceeded to organize under the Constitution, with the following result:

President—Dr. John F. Wright, Columbus.

Vice Presidents—Dr. G. Bohrer, Alexandria; W. A. Schofield, Indianapolis; E. G. Holladay, Indianapolis.

Secretary—Abner J. Pope, Indianapolis.

Treasurer—Stephen McNab, Indianapolis.

Mr. Holladay moved the appointment of a Committee on Apian Publications. Adopted. The Chair appointed Messrs. Holladay, Schofield and Barber.

A remonstrance against the further extension of the Langstroth patent, which has already run twenty-one years, was presented and signed by a number of members, after discussion pro and con by Messrs. Graff, Bohrer and Mitchell.

On motion, a committee consisting of Messrs. Bohrer, Mitchell and Sanders was appointed to select subjects for discussion at the next semi-annual meeting.

At the request of Mr. Bohrer, Mr. Sanders gave his experience in bee culture. He had kept bees for eighteen years, with varying success. For the past two years he had gone into the business with more regard to the proper study of the science of it. The past year had been disastrous to the bee interest. In October he noticed the colonies thinning out, and the quality of the honey generally poor. He lost fifteen colonies during the cold weather in December. The remainder are feeble, but he has hopes of wintering them. The stands were kept out of doors, and protected by a barricade of wood and straw, so as to keep off both wind and snow.

Dr. Bohrer had wintered on summer stands and in his bee houses and found no difference. The honey was of as good quality as he had ever seen. He thinks the disease troubling the bees, was in the nature of dysentery, though it may have been cholera. Others—men of experience—see no sign of actual disease, and recommend simply change of food.

Mr. Sanders said the season had been very dry in his neighborhood, but in the fall there was an abundance of honey dew, and many attributed the disease to the effects of this. His neighbors' experience had been the same as his.

Mr. Graw had examined thirteen of his colonies, and found them dead. In one the bees had died in the past four days. They had plenty of honey of good quality.

Dr. Wright had put twenty colonies into winter quarters. Those which had received sufficient protection from the cold had fared well. Some which he had put in the cellar, where it was slightly damp, had fared badly. The bees of his neighborhood had also suffered. He had observed no evidences of cholera. He believed the lack of sufficient warmth was the cause of the trouble.

The Committee on Apiarian Publications submitted their report, as follows, which was adopted :

*Resolved*, As the sense of this Association, that to carry out the objects of its members in advancing the best interests of Apiculture, we not only devote our attention to the apiary, but that we may do so to the best advantage we must obtain a knowledge of the discoveries of others by patronizing the publications of them in our bee journal, and to that end we would recommend the NATIONAL BEE JOURNAL, published by Messrs. Moon & Schofield, in the city of Indianapolis.

*Resolved*, That inasmuch as the State of Indiana and the city of Indianapolis have been, by the preference of the bee-keepers of North America, assembled in their convention at Cleveland, Ohio, in December last, considered the proper place for holding their next annual meeting in December next, we would call on apiarians to come up to our fall session, to meet at the time and of our State Agricultural Fair, prepared to contribute statistical and other matters, to show that we appreciate their preference, and that we are determined to vie with our sister States in our onward progress in apiculture.

*Resolved*, That to profit by each other's experience we may require communications of failures, and their causes, as well as success, and to that end we would recommend that bee-keepers not only write for publications, but that they bring with them, in condensed form, to our semi-annual associational meetings, the results arrived at, and that a statistical table of the products of our apiaries be furnished our Secretary for arrangement and publication at such meetings.

The discussion on the condition of bees was resumed, and participated in by Messrs. Bohrer, Mitchell, Holladay, Wright and others.

The disease which has decimated the colonies of bees in many sections of the State was generally conceded to be dysentery.

Some attributed it to improper food, others to insufficient ventilation. Others claimed that the excessive cold weather was the exciting cause.

Mr. Holladay contended that a ventilating space in the hive, above the brood chamber, was essential, in order that the condensed vapors might have a chance to settle, and not be absorbed by the comb, as under the latter circumstances the honey would sour.

Much difference of opinion was expressed as to the effect of old and new honey. Some had found their bees to suffer when deprived of old honey; others had found theirs to thrive under such treatment.

Dr. Wright attributed the predisposing cause of this disease to crowding and bad ventilation in winter. This, however, was not the only cause. The temperature of the hive must be kept above the "dew point." The temperature of the bee varies in a remarkable degree. The bee alone, of all living things, has the power of increasing its temperature to one hundred and fifty degrees or lowering it to ninety; and the bee alone is capable of sustaining its bodily heat in winter upon such simple food. He opposed upper ventilation. His plan was to inclose the brood chamber at top and sides in a close wrapping of paper, leaving the bottom entirely open and covered only with a screen, so that the foul air might be purified by contact with the air without. The late gathered honey that collected from burs and similar plants, was bad for the bees. It was very bad policy to leave too large a bulk of comb in the hive for winter. It absorbed the heat equal to a lump of ice. He believed that with proper attention to temperature and dryness bees could be wintered without difficulty.

Mr. McNab attributed the disease to the quality of the honey gathered in the fall. He had noticed his bees in large numbers fall exhausted near the hive on returning from excursions for honey, with a strong odor of "smart weed" about them, and he was inclined to think the honey gathered from this plant had produced a bad effect. His experience as to ventilation disagreed with Mr. Holladay's and Dr. Wright's. His best colonies had no top ventilation and very little at the bottom.

The discussion was still further continued and many differences of opinion elicited.

Thanks were returned to the State Librarian for courtesies, and the Convention adjourned *sine die*.

---

## EDITORS' TABLE.

---

### APICULTURE.

---

The early and high origin of apiculture, with the philosophical and Christian mind, is a subject of deep and impressive interest, and can not fail to create a fondness for rural life, if other motives were to be unavailing. Allusion has been made to this deep and interesting subject by many of our correspondents, setting forth the true and correct method of obtaining large profits from small capital. It is believed that the same capital and talents and labor applied to apiculture that is devoted to merchandise, will, on an average, give treble the results, so far as remuneration is concerned. If apiculture is well conducted all may be assured of a good and fair living and moderate accumulations. We are confident that no occupation, with the same amount of capital, can compete with practical apiculture, and, indeed, it is impossible to conceive of any employment more favorable to success and mental improvement than that of the aparian, for certainly there is nothing disagreeable about it, on the contrary it is full of interest. Why? Because it brings, in return for man's labor, a large income.

The cultivation of the honey bee may be said to be a learned profession. This may be true; but it may be, by close observation, made easy and successful. The nature and habits of the honey bee has long been a study for men of almost all nations; the pursuits of apiculture has always been, and still is, held in high estimation by the Chinese, of which we have many interesting accounts, but we would not urge the novice to engage in this business without first having a taste, or desire, to cultivate and manage the honey bee. With a disposition to follow this rural branch, with a determination to make it a success, seldom ever fails to have his expectations realized. It is highly probable that many will enter upon this, as upon various other occupations, and make a failure, which failure is more or less caused by the want of energy—the simple fact that bee culture is too well understood to need fear of a failure any more than the farmer. The practical knowledge of the honey bee in this country, as it

regards the most successful manner of obtaining the greatest amount of profit from our bees will vie with any nation on the globe.

It is truly pleasing to see so many becoming interested in bee culture; men and women of talent and wealth entering the field of apiculture; the merchant, he, too, is leaving his occupation and seeking a home in the country, many of them, wishing an occupation that they may spend the balance of their days in gaining a livelihood, seek this pleasant and lucrative business, at the same time to give tone and vigor to the constitution that has been impaired by close confinement; also to the social character of a country life. While there is, perhaps, a difference between the merchant and the apiarian, the one is rendered a little more polished in its manners than the other, while the apiarian pursuit is rendered more healthful and complacent, yielding a large income, with less liability to loss. Thus we see the retired merchants plant themselves on farms in the country; in so doing their minds become more buoyant and cheerful; and we see a freshness, in their old age, to which they would have been strangers amidst the crowd and the impure exhalations of a commercial emporium.

We would advise all new beginners to commence right. If you have but little experience in bee keeping get some good work on bees, and with the aid of it, and perseverance, you may accomplish the very design in which you embarked for.

Many have written us to know where they can obtain the pure Italian honey bee. We will answer, by referring them to our advertising columns. Many of our subscribers keep them for sale, and will give you an article that you may feel proud of, or no pay. The Italian honey bee has won a great reputation in this country, as a superior bee over the black or Egyptian. The pure Italian is very easily handled, and their great industry has given them the preference over all other bees.

---

### BEE KEEPERS' CONVENTION.

---

The call for a State Convention of bee keepers to meet, on the 23d, at the Senate Chamber in this city, was fairly attended. The Convention passed off very pleasantly, and many topics were discussed. An organization was perfected. We give in another column a part of the proceedings of the Convention.

The subject of "Dysentery" among the bees was pretty well discussed; bad honey, and long confinement, was the opinion of a majority of those troubled with it in their apiary.

Before the close of the meeting a remonstrance was read, asking the people to act in the manner to prevent an extension of the Langstroth patent hive; claiming that Mr Langstroth had been benefited more than probably any other bee keeper already. Having first got his patent for fourteen years, and then had it extended for seven more, which has nearly run out, and now wants Congress to grant him further extension. The remonstrance was signed by every one present, except one, and he did wish, and would ask, the courts to act in this matter. Wonder if the courts are not ready as soon as the parties are?

Taking everything into consideration, the meeting was a pleasant one.

---

### OBITUARY.

Samuel Wagner, Esq., the original owner and editor of the Lancaster *Examiner*, died last week at his residence in Washington, D. C., and was buried at York, Pa. He was a genial, kind-hearted man, and beloved by all who knew him.—*Manhiem (Pa.) Sentinel*.

Mr. Wagner was for years the editor of the *American Bee Journal*, printed at Washington, D. C. He was a close observer in apiculture and a great friend and advocate of the cause. He will be missed by the bee keepers of this country. Mr. Wagner was an old man, and his health had been failing for some time

---

The *Western Rural* comes to us as usual, filled with the very choicest reading matter of the day. Whenever our eye happens to see this paper we are often reminded of that good old passage—reading as follows: "Behold, I bring you glad tidings of great joy, which shall be unto all people." Surely no one need send East for a good agricultural paper when we have as good as ever printed upon American soil—a paper filled with the choicest reading, and having the experience of many of the most practical farmers in the country; you get a great variety of reading, embracing everything of interest to man. Then patronize a home paper, the *Western Rural* for the millions.

---

Thanks to Robert Emmet, of this city, Eas'tern Passenger Agent, Vandalia Route, for courtesies bestowed upon this office.

GREGORY'S SEED CATALOGUE.—Mr. J. J. H. Gregory, of Marblehead, Mass., who advertises his Catalogue in our journal, fills a position somewhat unique among seedmen, being a grower of seed as well as dealer in them. The extracts from letters received from over thirty different States and territories published on the cover of his catalogue, are a very satisfactory evidence in favor of the reliability of his seed, as well as his honesty as a dealer; while the the well-known fact of his having been the original introducer of the Hubbard Squash, and numerous other valuable vegetables that have become well-known throughout the United States, are pleasing evidence that his catalogue as issued from year to year will always prove a live one.

---

THE HOUSE AND GARDEN.—Geo. E. Blakelee, publisher of the *Ohio Farmer*, makes up monthly from that paper a valuable magazine called the "*House and Garden*;" it is full of practical matter, and adapted to the interests of the whole household. It is richly illustrated and contains thirty-two pages devoted to home embellishment, fashions and art, rustic and needle work, culture of flowers, domestic recipes, natural history, children's miscellany, management of the garden, growing small fruits, care of fowls, etc., etc. Only eighty cents per year. Sample copies ten cents. Address, Geo. E. Blakelee, Cleveland, Ohio.

---

We urge upon our friends and correspondents, in writing to us, to give their State, county and post office address. We have letters that can not be answered, as we can not tell where to write; and in ordering the paper stopped, some never give their address. We have to look through all our books before we can find their names.

---

#### ALSIKE CLOVER SEED FOR SALE.

In the last number of the JOURNAL we advertised Alsike Clover Seed at thirty cents per pound, or fifteen dollars per bushel. Mr. Huff, the gentleman who we expected seed of, informs us he has sold all of his clover seed. We can furnish the Seed for thirty-five cents per pound. This is the lowest we can sell it for.

---

Thanks to William Earnst, of Jackson, Michigan, Gen. Supt. of Foot Wayne, Jackson & Saginaw R. R., for favors bestowed upon this office.

## PUBLISHERS' DEPARTMENT.

## Advertising Rates.

SPACE.	1 Month.	2 Months.	3 Months.	6 Months.	1 Year.	SPECIAL.
1 Page.....	\$16	\$30	\$45	\$80	\$150	Outside of back cover, double rates.
$\frac{3}{4}$ Page....	12	20	30	55	100	Inside of back cover, 50 per cent. added to rates.
$\frac{1}{2}$ Column..	10	18	25	45	85	
$\frac{3}{8}$ Column..	8	15	20	40	75	
$\frac{1}{4}$ Column..	7	12	17	25	40	
$\frac{3}{16}$ Column..	6	10	15	20	30	
$\frac{1}{8}$ Column..	3	5	7	10	15	

Bills of regular advertisers payable quarterly if inserted for three or more months; payable monthly if inserted for less than three months. Transient advertisements, cash in advance.

We adhere strictly to our printed rates.

Address all business communications to  
MOON & SCHOFIELD, Publishers.

## BEE-KEEPERS' DIRECTORY.

Parties desiring to Purchase Italian Queens and Colonies, will find in this Directory 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.

**E. J. PECK,**  
**IMPORTER & BREEDER.**  
Send for Circular. Linden, N. J.

**GRAY & WINDER.**—Wax Extractors for sale. For particulars, address, Cincinnati, Ohio.

**GRAY & WINDER.**—Honey Extractors for sale. For price-list and particulars, address, Cincinnati, Ohio.

**ITALIAN QUEENS** in their highest grade of purity, for sale. Address G. BOHRER, Alexandria, Madison Co., Indiana.

## Italian Bees and Queens for 1872.

After the first of June I will fill orders at the following rates:

Pure queens, tested in my apiary, \$15.00.

Full Stocks in single chamber, Langstroth Hives, \$5.00.

Queens sent by mail, post paid. Purity and safe arrival guaranteed. Stocks delivered at this express.

A liberal discount from above rates on large orders.

M. C. HESTER,  
CHARLESTON, IND.

## THE QUEEN BEE HIVE

For the counties of

*Delaware, Grant, Randolph,  
Jay and Blackford,*

INDIANA.

See cut on 2d page of Cover.

Send for circulars and information,

H. H. PHELPS, Man'r,  
MUNCIE, IND.

Or for reference, P. F. DAVIS, same place.

## BEE KEEPERS GET THE BEST.

LEFFLE'S Center-Opening, Movable Comb Bee Hive; Champlon Honey Extractor; Italian Queens. Genuine Alsike Clover Seed. 40 varieties of pure bred Poultry, Pigeons, Rabbits, etc. Agents wanted everywhere. Agent's outfit only \$8. Send stamp for Circular to LITTLE BEE MAN,  
Springfield, Ohio.

**FULL COLONIES** of Italian Bees for sale, in their highest grade of purity. Address G. BOHRER, Alexandria, Madison Co., Indiana.

**WANTED.**—A single man qualified to take charge of an Apiary, as partner or for wages. Address, I. N. SHEPHERD, Raleigh, Tenn. 2t

**BEE-KEEPERS,** Send for circular describing the BAY STATE BEE HIVE. Also, price list of Italian Queen Bees, for 1872. Address, H. ALLEY, Wenham, Essex Co., Mass.

**WARRANTED PURE HONEY,**  
FROM THE  
**KANSAS APIARY.**

Pure Italian Queens, Colonies, Movable Comb Hives, Individual, Township and County Rights and Books on the Bee supplied to order. For particulars, address.

DR. L. J. DALLAS,  
Baldwin, Kan.

**A** **LSIKE CLOVER SEED**  
For Sale. Per pound, 30 cents;  
per bushel, \$15. Address,  
**HENRY HUFF,**  
Jonesville, Hillsdale Co., Mich.

**E. KRETCHMER,** Importer  
and Breeder of Pure Italian  
Queens. For circulars and particu-  
lars, address, Coburgh, Montg. Co.,  
Iowa.

**VANDALIA**  
**ROUTE WEST.**

**23 MILES THE SHORTEST.**

**3** EXPRESS TRAINS leave Indianapolis  
daily, except Sunday, for **St. Louis**  
and **The West.**

The ONLY Line running **PULLMAN'S**  
celebrated Drawing-Room Sleeping Cars  
from

**NEW YORK,**  
Pittsburgh, Columbus,  
Louisville,  
Cincinnati and Indianapolis  
**TO SAINT LOUIS,**  
WITHOUT CHANGE.

Passengers should remember that  
this is the **GREAT WEST BOUND ROUTE**  
for *Kansas City, Leavenworth, Lawrence, To-  
peka, Junction City, Fort Scott, and St. Joseph.*

EMIGRANTS TO KANSAS, for the purpose of  
establishing themselves in new homes, will  
have liberal discrimination made in their  
favor by this Line Satisfactory commutation  
on regular rates will be given to Colonists  
and large parties traveling together; and  
their baggage, emigrant outfit and stock, will  
be shipped on the most favorable terms, pre-  
sented to **Colonists and Families**  
such Comforts and Accommodations as are  
presented by **no other Route.**

TICKETS can be obtained at all the  
principal Ticket Offices in the Eastern, Mid-  
dle and Southern States.

C. E. FOLLETT, Gen'l Passenger Agent,  
St. Louis.

ROBT. EMMETT, East'n Passenger Ag't,  
Indianapolis.

**JOHN E. SIMPSON,**  
General Superintendent, Indianapolis.



**"BEE LINE."**

*Cleveland, Columbus, Cincinnati and  
Indianapolis Railway.*

**BY WAY OF CRESTLINE**

**ON and AFTER MONDAY NOV.**  
**26th, 1871,**

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

STATIONS.	No 4	No. 6.
Indianapolis .....	10:10 a m	*7:55 p m
Muncie .....	12:36 a m	10:12 a m
Fort Wayne .....	4:00 p m	.....
Union .....	*1:45 p m	11:29 p m
Bellefontaine .....	4:10 p m	1:46 a m
Crestline .....	*6:40 p m	4:20 a m
Cleveland .....	9:45 p m	*7:30 a m
Buffalo .....	4:10 a m	2:00 p m
Niagara Falls .....	10:10 a m	4:30 p m
Rochester .....	*7:15 a m	5:30 p m
Albany .....	4:10 p m	1:30 a m
Boston .....	11:20 p m	11:00 a m
New York City .....	6:30 p m	6:40 a m
Indianapolis .....	10:10 a m	*7:55 p m
Sidney .....	3:16 p m	12:52 a m
Toledo .....	5:40 a m	.....
Detroit .....	9:10 a m	.....
Crestline .....	*6:40 p m	4:20 a m
Pittsburg .....	1:25 a m	*12:10 a m
Harrisburg .....	11:25 a m	10:35 p m
Baltimore .....	3:05 p m	2:30 a m
Washington .....	5:00 p m	5:50 a m
Philadelphia .....	3:05 p m	3:00 a m
New York City .....	6:00 p m	7:00 a m

**Palace Day and Sleeping Cars**

Run Through as Follows:

On "No. 4"—From Indianapolis to Crest-  
line, Cleveland, Buffalo and Rochester, with-  
out change, and from Crestline to Pittsburg,  
Harrisburg, Philadelphia and New York  
without change.

On "No. 6"—From Indianapolis to Crest-  
line, Cleveland, Buffalo, Albany and New  
York, without change.

On Saturday "No. 6" runs through as  
usual, either by way of Cleveland or Pitts-  
burg, reaching New York on Monday morn-  
ing at 6:40

All trains leave Indianapolis daily, except  
Sundays.

\*Stop for meals.

Union Accommodation leaves Union De-  
pot at 3:35 p. m.

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

E. S. FLINT,  
Gen'l Sup't, Cleveland.

C. C. GALE, Div. Sup't, Indianapolis.

C. C. COBB, Gen'l Pass'er Ag't, Cleveland.

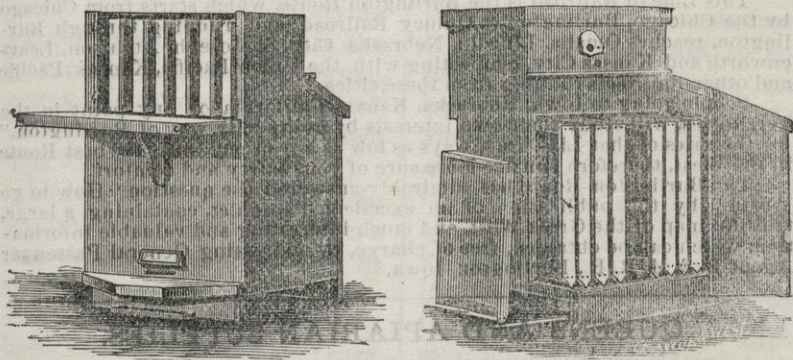


# IMPROVEMENT IN Movable Frame Bee Hives.

## THE WESTERN QUEEN BEE HIVE.

PATENTED JANUARY 9, 1872.

H. STAGGS, Patentee, Topeka, Kansas.



This is an indispensable article for the home of the honey bee. It is not only a perfect Bee Hive, but an equally perfect Queen Raiser, Feeder, fertilizer, Nuclei Box, Surplus Honey Department, etc., all combined under one head, which makes it the most complete and perfect Hive in use. This language may seem strong and bold, but, nevertheless, they are not half told. One must see it and know its practical workings to know its perfections, as pertaining to the Home of the Honey Bee; and its first cost does not exceed that of other practical Hives of the day.

## State Rights Low For Cash.

Send for Circular, which will explain more fully.

Address,

n5tf.

H. STAGGS, (Box 223) Topeka, Kansas.

# THE QUEEN BEE HIVE

## FOR THE STATE OF OHIO.

Farm Rights and Hive \$8.00. Townships from \$25 to \$100. Counties from \$100 to \$400.

Will exchange Township and County Rights for horses, sheep, etc.

Send for Circular and information. Address **E. A. PARKER,**  
100 East Washington St., Indianapolis, Ind

## "How To Go West."

Forty years ago, Illinois was as far West as most people wished to go, and journeys were made in the legendary "Prairie Schooner," but in these days of progress and improvement, the word West has come to mean Iowa, Nebraska, Kansas, Colorado, California and the Territories, and the traveler reaches almost any point therein by a splendid Line of Railroad.

This Line of Railroad is the Burlington Route, which starts from Chicago by the Chicago, Burlington & Quincy Railroad, and, running through Burlington, reaches Omaha, Lincoln, Nebraska City, St. Joseph, Atchison, Leavenworth and Kansas City, connecting with the Union Pacific, Kansas Pacific and other Railroads running from these cities.

People going to Iowa, Nebraska, Kansas, California, or any point in the Territories, will study their own interests by going "By way of Burlington," for the rates of that Line are always as low as any other, and is the best Route in the West, therefore you are more sure of your safety and comfort.

The Burlington Route has admirably answered the question "How to go West?" by the publication of an excellent Pamphlet, containing a large, truthful map of the Great West, and much interesting and valuable information, which can be obtained, free of charge, by addressing General Passenger Agent B. & M. R. R., Burlington, Iowa.

## QUEENS AND APIARIAN SUPPLIES.

Send for our Circular of Queens. Full Stocks, (in any style of Hive,) Bee Veils, Queen Cages, Bee Books, and everything in the line of Apiarian supplies. Our Circular contains much information of value to the amateur bee keeper. Send for it to

**OWEN & LADD,**

Brentwood, Williamson Co., Tenn.

## FOR SALE.

Italian Bees, Queens, Hives, Rights and Territory for sale at lowest possible rates. Warranted as good as the best. Agents wanted everywhere; large commission given. Circulars and price list sent free. Special Circular to applicants for agencies. I mean business. Try me. Address,

**S. D. BARBER, Mattoon, Ill.**

# Ft. Wayne, Jackson & Saginaw RAILROAD.

The most direct route to

Pittsburgh, Philadelphia, Baltimore,  
Washington, and all points South  
and Southwest.

*Trains Run by Chicago Time.*

## TRAINS GOING SOUTH.

	Mail.	Express.	An. Acc.
Jackson.....	7 15 A. M.	12 17 P. M.	4 25 P. M.
Hanover.....	7 55	12 32	5 14
Jonesville.....	8 25	1 17	5 57
Reading.....	8 55	1 47	6 40
Fremont.....	9 31	2 25	7 37
Angola.....	9 53	2 49	8 05
Pleasant Lake.....	10 05	3 02	
Summit.....	10 17	3 14	
Waterloo.....	10 34	3 29	
Auburn.....	10 48	4 42	
Fort Wayne.....	11 45	5 55	
INDIANAPOLIS.....	6 30 P. M.		
CINCINNATI.....	8 50	6 30 A. M.	
LOUISVILLE.....	11 00		

## TRAINS GOING NORTH.

	Angola Acc'n.	Express.	Mail.
LOUISVILLE.....		8 30 A. M.	11 00 P. M.
CINCINNATI.....			7 00 A. M.
INDIANAPOLIS.....		3 50 P. M.	10 25 P. M.
Fort Wayne.....		11 10 A. M.	4 10 P. M.
Auburn.....		12 08 P. M.	5 13
Waterloo.....		12 20	5 27
Summit.....		12 37	5 42
Pleasant Lake.....		12 49	5 54
Angola.....	6 15 A. M.	1 20	6 20
Fremont.....	6 47	1 42	6 43
Reading.....	7 42	2 21	7 20
Jonesville.....	8 25	2 50	7 45
Hanover.....	9 05	3 18	8 13
Jackson.....	10 00	3 45	8 50

At Jackson—Close connections are made with Michigan Central, Jackson, Lansing & Saginaw, and Grand River Valley Railroads.

At JONESVILLE—With Lake Shore & Michigan Southern Railroad.

At WATERLOO—With Lake Shore & Michigan Southern (Air Line.)

At FORT WAYNE—With Pittsburgh, Fort Wayne & Chicago; Toledo, Wabash & Western, and Fort Wayne, Muncie & Cincinnati Railroads.

W. A. ERNST, Sup't.

ROBERT RILLIE, Gen'l Ticket Ag't

**TAKE THE NEW AND RELIABLE  
ROUTE TO CHICAGO.**

THE

# Indianapolis, Peru & Chicago RAILROAD

Are now running two through Express Trains daily to Chicago via Michigan City, without change of cars, making close connections

At CHICAGO for Milwaukee, Janesville, Madison, LaCrosse, St. Paul, Rockford, Dunleith, Dubuque, Peoria, Galesburg, Quincy, Burlington, Rock Island, Des Moines, Omaha and San Francisco.

At MICHIGAN CITY for Niles, Saginaw, Kalamazoo, Lansing, Holland, Grand Rapids and Muskegan, and all points in Michigan.

At LAPORTE for Elkhart, South Bend and Goshen.

At PERU for Fort Wayne, Toledo and Detroit.

At BUNKERHILL for Marion and points East.

At KOKOMO for Logansport and points West.

All night trains are provided with the newly improved and luxurious WOODRUFF PARLOR AND ROTUNDA Sleeping Coaches

Baggage Checked through to all points.

F. P. WADE, Gen'l Ticket Agent.

A. B. SOUTHWARD, Asst Gen'l Sup't.

G. D. HAND, Passenger Agent.

# INDIANAPOLIS & CHICAGO SHORT LINE ROUTE,

VIA LAFAYETTE.

# Indianapolis, Cincinnati AND LAFAYETTE RAILROAD.

The Great Through Mail and Express  
Passenger Railway Line to

# CHICAGO!

Kansas City, St. Joseph, Quincy,  
Des Moines, Omaha, Milwaukee,  
Burlington, St. Paul,

And all points West and Northwest.

**THIS IS THE ONLY LINE**  
Running the Celebrated

**PULLMAN PALACE SLEEPING CAR**  
Between Indianapolis and Chicago.

This is the only Line Running  
**3 THROUGH TRAINS DAILY**  
From Indianapolis to Chicago.

After December 1, 1871, trains leave the  
Union Depot:

**3:10 A. M. FAST LINE;** arrives at Lafayette, 5:40 a. m.; La Crosse, 8:25 a. m.; Crown Point, 9:45 a. m.; Chicago, 11:50 a. m. Daily, except Sunday. **PULLMAN'S PALACE SLEEPING CAR** on this train.

**12:55 P. M. MAIL AND EXPRESS;** arrives at Lafayette 3:45 p. m.; La Crosse, 6:30 p. m.; Crown Point, 7:50 p. m.; Chicago, 9:45 p. m.

This train connects at Chicago with C. & N. W., C. R. I. & P., and C. B. & Q. R. R's, for all points in the West and Northwest. Daily, except Sunday. **PALACE DAY CAR** on this train through to Chicago without change.

**8:00 P. M. NIGHT EXPRESS;** arrives at Lafayette 10:45 p. m.; La Crosse 2:30 a. m.; Crown Point, 4:00 a. m.; Chicago, 5:50 a. m.

This train connects at Chicago with C. R. I. & P., C. & N. W., and C. B. & Q. R. R's, for all points in the West and Northwest.

Daily, except Sunday. **PALACE SLEEPING CAR** on this train. Berths can be secured at Telegraph Office in Union Depot.

Be sure to purchase Tickets via Indianapolis, Cincinnati & Lafayette Railroad, thereby avoiding delay, and arriving at CHICAGO IN ADVANCE OF ALL OTHER ROUTES.

Tickets on sale at all Principal Ticket Offices, and in Indianapolis at Union Depot Ticket Office.

WM. POWELL,

Passenger Agent, Indianapolis.

C. K. LORD, Chief Ticket Clerk, Cincinnati.

# MICHIGAN CENTRAL R. R.

## Main Line.--Trains Westward.



# RAILROAD TIME TABLE

TAKES EFFECT JANUARY 29, 1872.

TRAINS DEPART.

TRAINS ARRIVE.

C. C. C. and I. R. R. (Bee Line.)

Local.....	5:15 a.m.	Express.....	6:45 a.m.
Express.....	10:10 a.m.	Express.....	10:30 a.m.
Express.....	3:35 p.m.	Local.....	3:15 p.m.
Express.....	7:55 p.m.	Express.....	6:10 p.m.

P. C. & St. L. R. R. (Indiana Central.)

Fast Line.....	3:30 a.m.	Southern Ex.....	2:15 a.m.
Mail Ex.....	10:10 a.m.	Sunday Ex.....	2:15 a.m.
Express.....	6:30 p.m.	Express.....	8:45 a.m.
Sunday Ex.....	6:30 p.m.	Fast Line.....	5:55 p.m.

Terre Haute, Vandalia & St. Louis.

Pacific Ex.....	3:15 a.m.	East F. L.....	3:15 a.m.
St. L. Day Ex.....	9:00 a.m.	Mail.....	10:15 a.m.
Evansville Mail.....	1:00 p.m.	T. Haute Ac.....	5:15 p.m.
St. L. N't Ex.....	8:00 p.m.	Atlantic Ex.....	6:10 p.m.

Indianapolis & St. Louis R. R.

St. Louis Ex.....	7:15 a.m.	Light'g Ex.....	3:10 a.m.
Mattoon Ac.....	1:00 p.m.	Night Express.....	10:50 a.m.
Night Ex.....	8:00 p.m.	Mattoon Ac.....	5:00 p.m.
		Day Express.....	6:20 p.m.

Cincinnati Railroad.

Baltimore Ex.....	3:20 a.m.	Baltimore Ex.....	2:35 a.m.
Mail.....	10:45 a.m.	Marins'le Ac.....	10:05 a.m.
Martins'le Ac.....	2:05 p.m.	Mail.....	12:35 noon
Baltimore Ex.....	6:45 p.m.	Baltimore Ex.....	7:50 p.m.

Lafayette Railroad.

Omaha Ex.....	3:10 a.m.	Chicago Ex.....	2:50 a.m.
Chicago Mail.....	12:55 noon	Chi. & Q. Ex.....	10:30 a.m.
Chi. & Q. Ex.....	8:00 p.m.	Omaha Ex.....	6:20 p.m.

Indianapolis, Bloomington & Western.

Pacific Ex.....	4:05 a.m.	Express.....	3:05 a.m.
Day Express.....	1:20 p.m.	Express.....	10:05 a.m.
Night Express.....	8:05 p.m.	Pacific Ex.....	7:05 p.m.

Cincinnati Junction Railroad.

Express.....	10:35 a.m.	Mail.....	1:00 p.m.
Mail.....	7:10 p.m.	Express.....	8:00 p.m.

Vincennes Railroad.

Vincennes Ac.....	6:20 a.m.	Spencer Ac.....	10:00 a.m.
Mail and Ex.....	1:00 p.m.	Vincennes Ac.....	5:50 p.m.
Spencer Ac.....	3:35 p.m.	Mail and Ex.....	6:30 p.m.

Peru and Chicago Railroad.

Chi. & Tol. Mail.....	6:50 a.m.	Chicago Ex.....	7:25 a.m.
Toledo Ex.....	2:50 p.m.	Toledo Ex.....	9:55 a.m.
Chicago Ex.....	8:00 p.m.	Mail & Chi. Ex.....	5:15 p.m.

Jeffersonville and Madison Railroad.

Louisville Ex.....	3:20 a.m.	Louisville Ex.....	3:00 a.m.
Lou. & Mad. M'l.....	8:00 a.m.	Columbus Ac.....	9:50 a.m.
Columbus.....	Ac. 3:20 p.m.	Louisville Ex.....	12:45 noon
Louisville Ex.....	6:30 p.m.	Lou. & Mad. Ex.....	7:40 p.m.
Sunday Train.....	8:00 a.m.	Sunday Train.....	7:40 p.m.

Indianapolis & Ft. Wayne Short Line, via "Bee Line."

Ft. Wayne Ex.....	10:10 a.m.	Ft. Wayne Mail.....	6:10 p.m.
Ft. Wayne Mail.....	3:35 p.m.	Ft. Wayne Ex.....	10:30 a.m.



**Italian Queens**  
Almost Free.-Offered in BEE KEEPERS' JOURNAL, Best Agricultural Paper, ONE YEAR, and BEST BEE BOOK, for \$1.00. Movable-Comb Hives,

etc., for sale. Agents Wanted. Sample Copy, and Hints to Bee Keepers, (a ten cent 32 page pink cover pamphlet,) all sent free. Address,

H. A. KING, 14 Murray St., New York.

## TRAINS EASTWARD.

Dist. from Chicago	STATIONS.	Kalamazoo		Day Ex-press.	Atlantic Ex-press.	Night Ex-press.
		Account'd'n.	Mail.			
		P. M.	A. M.	P. M.	P. M.	P. M.
	Chicago Depart.	3:45	6:00	9:00	5:15	9:00
1	22d Street	3:58	6:13	9:13	5:28	9:13
4	Calumet, (I. C. J.)	4:25	6:45	9:40	5:55	9:40
35	Lake, (J. C. O.)	5:10	7:40	10:23	6:40	10:35
41	Porter.....	5:27	7:57	10:37	6:54	10:40
50	Michigan City.....	5:55	8:25	11:05	7:22	11:10
66	New Buffalo.....	6:17	8:45	11:22	7:40	11:30
82	Dayton.....	6:55	9:25			
97	Buchanan.....	7:05	9:46	11:56	8:16	12:08
93	Niles.....	7:35	10:05	12:30	8:30	12:30
105	Dowagiac.....	8:00	10:28	12:52		
116	Decatur.....	8:30	10:55	1:10		
124	LAWTON.....	8:48	11:13	1:23		
128	Mattawan.....	8:57	11:22	1:31		
141	Kalamazoo.....	9:30	11:55	2:00		
		P. M.				
149	Galesburgh.....	9:50	12:17	2:16		2:30
163	Battle Creek.....	10:22	12:53	2:47		2:58
176	Marshall.....	10:50	1:25	3:15		3:27
188	Albion.....	11:20	2:12	3:37		3:50
197	Parma.....	11:42	2:35	3:52	A. M.	4:08
208	Jackson.....	12:05	3:00	4:17		4:25
218	Grass Lake.....	Dexter	3:32	4:37	12:27	5:00
229	Chelsea.....	Ac'n	3:58	4:55	1:29	5:25
237	Dexter.....		7:05	4:15	5:08	1:35
246	Ann Arbor.....		7:35	4:42	5:24	1:58
254	Ypsilanti.....		8:00	5:05	5:40	2:22
266	Wayne.....		8:33	5:33	6:03	2:45
274	Dearborn.....		8:53	5:51	6:15	3:00
281	G. T. Junction.....		9:10	6:10	6:30	3:20
284	Chicago. Arrive		9:25	6:25	6:45	3:35

H. E. SARGENT, Gen. Supt.

C. H. HURD, Asst. Gen. Supt., Detroit.