



# LIBRARIES

UNIVERSITY OF WISCONSIN-MADISON

## **National bee journal. Vol. V, No. III March, 1874**

Des Moines, Iowa: Homestead and Western Farm Journal Print, March, 1874

<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.

11695.1

Vol. V.

No. 3.

# NATIONAL

# BEE JOURNAL



A MONTHLY MAGAZINE,  
DEVOTED EXCLUSIVELY TO BEE CULTURE.

EDITOR & PROPRIETOR,  
**MRS. ELLEN S. TUPPER,**  
DES MOINES, IOWA.

## CONTENTS.

### CORRESPONDENCE—

Do Bees Make Honey?.....	53
Bee Disease in Western New York.....	54
Notes from Virginia.....	55
Notes from North Carolina.....	56
How to Render Wax.....	56
Influence of Soil and Climate on the Pro- duction of Honey.....	56
New Bee-Hive Stand.....	58
Wintering in Illinois.....	59
Spring Treatment of Bees.....	59
Reply to H. A. Eason.....	60
Wintering in New York.....	61

How Should Combs Be Placed?.....62

### EDITORIAL—

Profits of Bee-Keeping.....	63
Bee Pasturage.....	64

### NOTES AND QUERIES

### MISCELLANY—

Bees as Architects and Mathematicians.....	76
A Word for Bees.....	76
An Imprisoned Queen.....	77
How to Send Money.....	78

### ADVERTISEMENTS

## MARCH, 1874.

DES MOINES, IOWA:

HOMESTEAD AND WESTERN FARM JOURNAL PRINT,  
313 AND 315 COURT AVENUE.



# NATIONAL BEE JOURNAL.

## SUBSCRIPTION TERMS for 1874.

One copy one year.....\$2 00 | Ten copies, to clubs.....\$1 60  
 Five copies, to club..... 1 75 | Fifteen copies, to club..... 1 50  
 A work on Bee Culture, and a package of Alsike Clover Seed will be sent to each subscriber. All subscriptions to be paid in advance. Sample copies sent free.

## PREMIUM LIST.

We offer the following liberal premiums to those who get clubs for the JOURNAL: For

<i>Subscribers.</i>	<i>Premiums</i>
Forty, and \$80 cash—one Wilcox & Gibbs Sewing Machine.....	\$40 00
Twenty, and \$40 cash—one colony of Italian Bees, in movable comb hive.....	20 00
Fifteen, and \$30 cash—one Honey Extractor, either standard kind.....	5 00
Ten, and \$20 cash—Plants and Bulbs.....	10 00
Five, and \$10 cash—Italian Queen.....	5 00
Five, and \$10 cash—Plants and Bulbs.....	5 00
Four, and \$8 cash—Sample Hive (preferred by us).....	4 00
Twelve, and \$24 cash—Pair Houdan Fowls.....	12 00
Eight, and \$16 cash—Partridge Cochín Cock.....	8 00
Six, and \$12 cash—Houdan Cock.....	6 00
Two, and \$4 cash—one Globe Microscope.....	—

These premiums are estimated at their actual cash value, as sold to customers.

## CLUBBING LIST.

We have taken especial pains to select for our clubbing list the class of papers that will embrace a variety of topics. We will furnish the

NATIONAL BEE JOURNAL and—	NATIONAL BEE JOURNAL and—		
Iowa Homestead and Farm Journal for.....	3 00	Harper's Magazine for.....	\$5 00
Hearth and Home for.....	\$4 00	Harper's Weekly.....	5 00
Indiana Farmer for.....	3 00	Harper's Bazar.....	5 00
Ohio Farmer for.....	3 00	St. Nicholas, a new juvenile monthly, for.....	3 25
Coleman's Rural World for.....	3 00	Farmer's Home Journal for.....	3 50
Cultivator and Country Gentleman for.....	4 00	Annals of Bee Culture for.....	2 50
Western Rural for.....	3 50	Atlantic Monthly.....	5 00
Scientific American for.....	4 50	Appleton's Magazine.....	5 00
National Stock Journal for.....	3 50	Inter-Ocean (weekly).....	3 00
Horticulturist for.....	4 00	Scribner's Monthly.....	5 00
Bee-Keepers' Magazine.....	2 50	Every Saturday.....	5 50
National Agriculturist.....	2 50	Our Young Folks, and two Chromos.....	3 00
Practical Farmer.....	3 00	American Bee Journal.....	3 00
Moore's Rural New Yorker.....	3 75		

## Queen Bee Hive.

The partnership between Atkinson & Barber has been dissolved by mutual consent, and for the sale of the following territories in the above hive, apply to E. H. Barber, Indianapolis, viz: Kansas, Missouri, Illinois, Arkansas, Iowa, Minnesota, Washington and Oregon.

For all other unsold territory in the Queen Bee Hive and Atkinson's Honey Extractor, apply to T. ATKINSON, Live Oak, Florida.

## ITALIAN QUEENS.

We are prepared to furnish Queens next season from the best stock in this country. We send out none but tested Queens, warranted pure and prolific. We have a few tested last fall that we will send as early as possible, (last of April or 1st of May) at \$8 each. These are of special value to those who intend to rear Queens early. After June 1st, one queen, \$5; three, \$12; eight, \$30; thirty, \$100. Address **Italian Bee Company**, Des Moines, Iowa.

## Basswood or Linden Sprouts!

**\$2** per hundred; \$3.50 for two hundred; \$6 for five hundred; \$10 per thousand. Well watered and in nice condition. Boxed and delivered at my express office, free of charge. Orders will receive prompt attention. Satisfaction warranted. Small lots sent by mail. Address, H. M. ROUP, Carson City, Montcalm Co., Mich. [2-3t

## MELIOTT CLOVER SEED!

We can furnish this Seed to all who wish it at reasonable rates. Price, 30 cents per pound, or four pounds for \$1. Address, **Italian Bee Co.**, Des Moines, Iowa.

# NATIONAL BEE JOURNAL

DEVOTED EXCLUSIVELY TO BEE CULTURE.

VOL. V.

MARCH, 1874.

No. III.



Correspondents are especially requested to write on one side of the sheet only. Many of our readers doubtless have valuable practical ideas on bee culture, who feel incompetent to write for the public press. Send them to us in your own way, and we will "fix them up" for publication.

## DO BEES MAKE HONEY?

MRS. TUPPER:—I find, on looking over the *American Bee Journal* for January, an article entitled, "Do Bees Make Honey?" Now, I am not going to set up my judgment in contradistinction to older and wiser heads than mine. Being but a new beginner in bee-keeping, I do not propose to discuss the question scientifically; for, should I undertake it, I would fail entirely.

I find many people in this vicinity very skeptical with regard to the facts laid down in our best works on apiculture. I have not yet sufficiently advanced in the science to prove to them that it will pay, even pecuniarily, although I am very confident of this fact myself. A great many say, "You feed your bees sugar syrup for half what honey costs, and then extract it and sell it for the pure article." I would say, for the benefit of those who have not tested it, that last September I fed my bees about twenty-five pounds of coffee-sugar syrup per stock, after extracting all of their natural stores. This amount I fed all

at once, in Novice's tea-kettle feeder. In about one week afterwards, to satisfy myself, I cut out some of the comb, which was filled with the syrup, and, without informing any one, placed it on the tea-table. It looked as nice as any white clover honey you ever saw, and there was not one in my family of four, on tasting it, but that pronounced it sugar syrup, when they were not previously informed of the fact. No one could be deceived by it; there was not a particle of honey taste about it.

Chemical analysis may disprove my theory; but for all practical purposes, for the table, sugar syrup, when worked over by bees for honey, is an utter failure. Syrup may undergo some chemical change in the receptacle of the bee, but I imagine it is so little that an epicure could not perceive it. Still, I think it is as good food for bees as any natural stores.

I have but eight stocks; six of these are Italians. I carried the Italians into the cellar, November 20th. Mercury in the cellar, up to the present writing, ranges from 38° to 50°, usually about 40°. I carried them out and gave them a good fly, some two weeks since; (mercury in the shade stood at 60°) carried them back in the cellar next day. They are in Simplicity hives, with cloth quilts on the frame; cover to hives raised about one-eighth of an inch; entrance somewhat contracted. My cellar getting damp, I placed bundles of straw on top of and below the hives, the hives being on a



bench. Put a four-inch pipe in cellar, and connected with stove pipe in room above for ventilation, which is quite an improvement; and my bees are in as good condition as could be wished. My other two colonies are in a common box hive, which I mean to transfer in the spring, should they live. They are some I recently bought, and are away from home, out doors.

I have a few questions I would like to ask:

My neighbor, Blackburn, has lost his only stock of Italians. The circumstances are as follows: He fed them on sugar syrup in October. They did not seal it quite all up, but filled up all the center combs, leaving no vacant space; put them in cellar about a month after I did mine. He had kept on frames; single thickness heavy cotton cloth, which he left on in cellar; left cover off entirely; it did not freeze in cellar. About one week since, they were all dead. Was the reason of their dying because they filled up all space, leaving no room of sufficient warmth—whether the covering was insufficient,—or because they did not seal up all their stores? Their combs were very much soiled, and their abdomens distended with very much stench about them. The queen was pure and very prolific. It was a good deal of a loss, especially to a new beginner. We think it dysentery. Please answer as soon as convenient, that we may avoid further loss.

You must excuse my desultory way of correspondence, for I presume you can condense the foregoing so that it will occupy much less space. I have not yet attained the much coveted art of condensing much in little.

E. N. POOLE.

Summit Co., Ohio.

### BEE DISEASE IN WESTERN NEW YORK.

As my experience with the bee disease (so called by many good apiarists) has been of a character not to

make its repetition desirable, I propose to give a few facts connected therewith, hoping that some of your correspondents will correct me if I have arrived at a wrong conclusion.

Our apiary is located on the western slope of the Genesee, about seven miles west from the river, on a line not far from one mile north of west from the village of Genesee,—overlooking one of the fairest sections of this world-renowned vale, the beautiful valley of the Genesee. Although during the cold spells on the flats the mercury in the thermometer sinks several degrees lower than on the uplands, yet—owing to lower elevation and protection from winds during the middle of calm, clear days,—the temperature at times was of sufficient warmth to admit of bees' flying; whereas, at the distance above mentioned, they had no opportunity to leave their hives from late in the fall till the latter part of winter; consequently, when the chance did come, what had not been frozen out were in an emaciated condition, and hardly able to regain the hive after once leaving it. This so reduced them in numbers that they were unable to recruit by breeding, and, as a consequence, gradually dwindled away, leaving hives well stored with pollen, combs, and honey.

Out of an apiary of over sixty colonies in the spring of 1873 we had but one swarm left. Our neighbors fared no better, for throughout the length and breadth of this elevation of country, bordering both sides of the valley, from Ontario to Pennsylvania,—part of the fairest section of Western New York,—the same scene of disaster and desolation, to a greater or less extent, prevailed, and bee-keeping received a blow from the effects of which it will require some years to recover. Piles of empty hives was all that was left of flourishing apiaries, and the busy hum of millions of industrious workers was hushed in silence, for stillness reigned supreme.

From facts above mentioned, I am

led to believe that the great loss of bees throughout the country was occasioned by protracted cold weather, without any favorable opportunity for purifying flights. In the valley proper the loss was not above the usual average, as they had several chances to fly, and, consequently, came through strong and healthy. As you traveled east or west from the river, and gradually raised the hills, the greater would be the loss till you arrived at what might properly be termed the "dead line."

Another circumstance which goes to confirm my opinion that there was no epidemic disease is, that I took some hives with frames of comb left by bees which had died from the disease the winter before to a person in Avon, who hived into them new swarms, which went through last winter without any sign of disease, and came out in the spring in fine condition—strong, healthy, and entirely free from any sign of disease. I again have all of my hives and combs refilled with bees, and never had them do better than they did the past season.

I will conclude by saying that if reusing hives and combs from which bees died out the season before would not spread and propagate disease, then there could not have been any disease to scatter. When, with due care, we can count on wintering our bees with as small loss as on other live stock, then will bee-keeping be established upon a sure basis; whereas, within the last few years hundreds of dollars have been invested in the business from which there has not been received any adequate returns.

C. R. ISHAM.

Peoria, Wyoming Co., N. Y.

#### NOTES FROM VIRGINIA.

I suppose you know that the population around Alexandria, Georgetown, and Washington have been much disturbed during the last few

years, and are just getting to feel at home again, and to feel that they are getting things a little home-like around them. I have been enquiring around to find persons who have bees, and, by talking bees, have tried to make them desire to know more of them. I read your little book on their management and culture and your journal—both of which I was delighted with—before I started to make an impression. Every one seemed pleased and surprised with the items of information which I gave them. I am sure I set them to thinking on the subject.

I went with Pa to a wealthy neighborhood, last Saturday, seven miles north of us, to a church meeting, where ladies and gentlemen both met and spent the afternoon and evening. I had a fine opportunity to talk to the ladies and gentlemen. Some smiled at my enthusiasm on the subject, but many said they would keep bees, but they did not know the first principles of keeping them, and that the moth or caterpillar destroyed them in this country. I told them they never would know more than they did now, unless they would inform themselves through some journal, and benefit by the experience of others. I showed your journal, and left one there to be shown around. Pa preaches there in four weeks again. I will go with him, if possible, and see if my talking has done any good. I fear they will move slowly in this matter, because on most every subject people have to be educated; but, if I commence and succeed, almost all the ladies in that neighborhood would enter into it, so some of the gentlemen said. Those that have bees keep them in the old-fashioned hive, and they kill the bees when they want the honey. I told them, "How cruel!" etc.

I will send for a JOURNAL as soon as I can get the money. I see by the JOURNAL that Pa can get it for \$1. I will keep trying, whenever opportu-



nity offers, to get you subscribers. I will, or may be, slow to send you subscribers, but I think I will get some now soon.

MARY H. MILLS.

Alexandria, Va.

#### NOTES FROM NORTH CAROLINA.

DEAR MADAM:—I located here for health's sake, and find it to be but a poor location for bees, only as we provide pasturage. We have now catnip, Meliott, white clover, golden-rod, cleome, and lophanthus, besides a few native flora—boneset, sour wood, black gum, soft maple, and alder. The last two seasons have been very discouraging to bee-keepers here. Some have lost all their bees, and others received little or no profit from theirs. The seasons seemed unfavorable to the flowers secreting sweet.

I also wish to thank you for your book on bees and copies of the NATIONAL BEE JOURNAL. I am much pleased with it, and have taken pleasure in showing it to neighbor bee-keepers. I may be able to get some subscribers for you by and by, if the coming season does not also prove unfavorable.

A. E. KITCHEN.

North Carolina.

#### HOW TO RENDER WAX.

A very good and cheap wax extractor may be gotten up by fitting into a common wash boiler a false bottom of wire cloth about one-third of the way from the bottom of the boiler. The wire cloth should not be coarser than No. 8; that is, eight wires to the inch; should be stiffened by a heavy wire around the edge, and the boiler so arranged that the false bottom may be fastened in securely, and be easily removed. This may be done by having tin or wire loops soldered around the inside of the boiler just where the wire bottom goes, and it can be tied to the loops or fastened with wire hooks.

To use this apparatus, leave out the wire bottom, put a little water, in it,

set it on the stove, and put into it the comb to be rendered into wax. As the comb softens and sinks you may keep adding more until the boiler is filled with melted comb up to the loops; then put in the false bottom, fasten it, and pour in hot water enough to float the wax above the wire cloth. Let it boil a considerable time, and set off to cool. The wax will harden into a cake on top of the water, and is easily removed. If it is not clean enough, boil up in clean water, as usual. If the wax is not well out of the refuse under the false bottom, boil it some more.

This extractor works very well, and is not so "mussy" as the old way of boiling up in cloths; and then the boiler is just as good for other purposes as ever.

W. C. P.

Kentucky, Feb., 1874.

#### INFLUENCE OF SOIL AND CLIMATE ON THE PRODUCTION OF HONEY.

Honey being the ultimate source of all profit to be derived from the pursuit of apiculture, whatever may affect its supply can scarcely fail to be of interest to intelligent apiarians everywhere.

The causes that influence and control this production of nature's laboratory have, as we think, received too little attention from American bee-keepers. Though we cannot control them as we choose, a knowledge of them may prove beneficial in many ways. Even the satisfactory explanation of seeming discrepancies in the statements of different writers will be a result worth striving for.

That the production of honey is largely dependent upon the modifying influences of soil and climate, we think no intelligent apiarian will deny. In no other way can we account for the conflicting statements so often met with in the bee journals. For instance, at the last session of the Michigan Bee Keepers' Association, several members claimed that white clover was worthless as a honey pro-

ducing plant, while many others, strenuously maintained a contrary opinion. Now we believe both parties were correct. We have never known white clover to yield honey in any quantity where grown in a cold, damp, forbidding soil. But on a dry, sandy loam or gravel soil, it yields in abundance. In my own vicinity, white clover has secreted but little honey during the past seven years that I have resided here, though it was the main dependence for surplus honey in my former location in western New York.

Perhaps there is no honey producing plant that has been the subject of such wide differences in opinion as buckwheat. I know of but few plants that are so susceptible to atmospheric influence as this. Though it secretes nectar of good quality and in abundance every year in my locality, I know that in many places it is a total failure. A warm, humid atmosphere is indispensable to its full development as a honey producing plant.

Poplar and basswood, two important sources of honey supply, are also largely affected in its secretion by the atmosphere. The latter, coming into bloom as it does in the hot days of sultry July, is more variable in its yield than the former. A friend residing about forty miles from me has an apiary located about a mile from two large basswood forests. The site of one is a high, rolling piece of land, while the other is a river bottom. He informs me that, with but one exception, the supply of honey was unlimited while it remained in blossom. In a very warm, dry season the river forest would secrete nectar in great abundance, while the other gave a full supply under the opposite conditions. In the season of 1869 however, with frost in every month of the year, and an almost continual rain storm, basswood withheld its usual supply.

From close observation we have come to the unwelcome conclusion

that the certainty of an abundant secretion of "nature's choicest sweets" is becoming more precarious every succeeding year. Twenty-five years ago it was not an uncommon occurrence for a new swarm, hived in some old box or salt barrel, to store up two hundred pounds of comb honey, before the inevitable brimstone match put an end to their untiring industry. Every intelligent bee keeper well knows that the attainment of such a result would imply a land "flowing with milk and honey," especially the latter. We all know that even with the best of hives, scientific management and the tact and skill acquired by long years of experience, are necessary to the attainment of equal success at the present time. What, then, is the cause of this marked diminution in our honey resources? And what the remedy?

There are, doubtless, various causes; but the chief one which transcends all others combined is, as we think, the wholesale destruction of our forests. That timber forests have a very great influence on the climate of a country but few will deny. The history of Europe conclusively proves this. Their disappearance in our own country has been attended with greater extremes in temperature, uneven distribution of the rain fall, and an arid, changeable climate. Honey is secreted in greatest abundance in a warm, humid atmosphere, and this is superinduced by the contiguity of extensive forests. The remedy, then, is plainly indicated by the above. Plant trees. In doing this we would select such as are noted for their honey producing qualities. Of this class, white-wood, (*Seiridendron*), and basswood, (*Tilia Americana*), stand preeminent. Though the latter has received the unqualified endorsement of many able bee keepers, we consider it inferior to the former as a source of long supply, and would certainly give it equal prominence in setting out a "honey orchard." At some time in the future



we may give the readers of the NATIONAL some practical hints relative to the growing of timber as a means of increasing the production of honey.

HERBERT A. BURCH.

South Haven, Mich.

### NEW BEE-HIVE STAND.

MRS. EDITRESS:—Last season I made and used a bee-hive stand which I think is so much of an improvement over those commonly used that, with your permission, I will describe it to the readers of the JOURNAL.

Now, in order to make it plain, I will give dimensions of each board, and will also number or letter each part. We will suppose our hive to be 14 inches wide and 20 inches long—both outside measures. And now we will proceed to make a stand to fit it. First we cut two boards, each 20 inches long, six inches wide, and one inch thick. Now, begin at the end, and from one edge cut out a piece one inch deep and 10 inches long; or, in other words, cut a piece so as to leave one-half of each board five inches in width. We will mark these boards, one A and the other B. Now, cut a board 14 inches long, 10 inches wide, and one inch thick; this we mark C. Place A and B side by side, 18 inches apart, straight side down, and with the narrow ends both one way; lay C on the narrow ends of A and B, and nail it fast to them. Next cut a board D, 12 inches long and two inches wide; place it between A and B; slide one-half its width under the front edge of C, and nail it. Now, cut a board E, 12 inches long and 10½ inches wide; this is the alighting board, and is to be placed between A and B in such a manner that its front edge will rest on the ground while the back edge, which must be beveled a little, rests against the front edge of D; fasten by nailing through A and B into the end of it. And now let us set our hive on the stand, and see how it fits. You will keep in mind its dimensions (20x14

inches, outside measure). We set the hive on with the back end over the board C, and find that one-half of the bottom of the hive is closed by that board; one-half of the long sides of the hive rests on the edges of the boards A and B of the stand, and is supported by them. You will notice that no part of the stand projects beyond the hive, not even the alighting board, for, though it is 10½ inches wide, it is directly under the stand, and out of the way; this is just right. And now we will go to work and finish our stand in a jiffy. Cut a board F, 12 inches long, nine inches wide, and one inch thick. This is to form the front end of the stand. Place it between A and B, one inch below their top edges. The entrance to the hive is made by cutting out the back edge of this board as follows: First, in the center cut a kerf just three-fourths of an inch deep. Then begin one inch from each end, and cut towards the kerf, so as to strike it at the deepest point; that is, you will take out the wedge-shaped pieces one from each side of the kerf, each five inches in length and three-fourths of an inch thick at the large end. Now put this board in its place on the stand, and by sliding it back over the board D until it touches the front edge of C, the entrance is entirely closed; draw it towards you, and the entrance is gradually enlarged to the desired size. The advantages of this stand are:

1. The entrance is so placed as to admit the bees just in the center of the hive, and when, in warm weather, the board F is drawn out an inch or more, many of the bees coming into the hive will alight directly on the combs or bottom of the frames.

2. It also admits air just where it is most needed; viz, in the center of the hive.

3. When opening the hive for the purpose of extracting, draw the board F entirely out; take out the frames, and shake the bees down in front of the hive, and by the time you are

ready to replace the frames the bees will all be inside the hive, instead of being clustered outside on the front.

4. The entrance is always shaded, and the alighting board always dry.

5. The front edge of the alighting board rests on the ground, thus enabling bees which have fallen to the ground easily to regain the entrance of the hive. We should have said that the upper corner of the front edge of C must be beveled off, so that when F is slid back against it no bees will be crushed between them.

Should "Novice" discover any similarity in our manner of regulating the entrance to that described by him in the *American Bee Journal*, Vol. 8, page 50, we would say to him that that is just where we got the idea, and are not only willing to give him the credit, but will also say, thank you, Mr. "Novice."

In the above we have made the width of the boards A and B six inches which, of course, would be the height of the stand when completed. This I think the proper height when made for large hives. By making the back end like the front, we have an entrance at both ends of the hive. Some may not like the portico which is formed by the boards E and F, and which is, in the hive above described, nearly nine inches deep. I have used three of the above stands the past season, and never found a web or spider in them.

Will Friend Novice please try one or more of them, and tell us just what he thinks of them, even if he does not like them? We won't get angry, nor call names.

S. W. STEVENS.

Ridgefield, Conn.

#### WINTERING IN ILLINOIS.

Bees here are mostly wintered on the summer stands, and nearly all died in the winter of 1872-3. Cold killed them, we think, and we tested it to our satisfaction. Two hives, as near alike as could be, were left on the sum-

mer stands. One had no protection; the other was set in a long box, and each end filled with fine corn husks, and the top of the hive covered with old carpet and straw. A cover was put on the box to keep out rain and snow. The hive without protection died before spring; the other wintered extra well, and swarmed four times. I wintered the rest of my bees in the cellar. All came out in very good condition in the spring; lost three in April; left their hives no brood, but plenty of honey; think my cellar was too cold—33° above zero. Winter of 1871-2 wintered well in the cellar at 40° above zero. In 1873-4 kept my cellar 40° above zero. To-day (Feb. 17) took one hive out to examine it; found eggs, grubs, and young bees in plenty; not a spoonful of dead bees in the hive; are very dry, and have plenty of honey. When I set my bees out in the spring, I will weigh them, and report the quantity of honey consumed from November 1, 1873.

C. W. GREEN.

Oquawka, Ill.

#### SPRING TREATMENT OF BEES.

As soon as bees are removed from their winter quarters and placed on their summer stands, each hive should be examined, and its exact condition known. All dead bees and accumulations of every kind should be removed. Should any colonies be found queenless, and sufficient numbers of bees remain to keep up the heat and attend to the wants of the hive, I would advise that it be not broken up or united with another stock, but given frames of comb containing eggs. Continue this from time to time till drones appear, when they can rear a queen and be sure of her mating. A prolific queen can supply eggs as fast as any two stocks can care for them in spring. Stop all upward ventilation, and keep the entrance contracted, so that but two or three bees can pass in or out at a time. Du-



ring chilly days and those too cold for her to fly close the entrance entirely; also, close the entrance at night. Some may think this too much trouble; but if they will once give it a trial, they will find it will pay. It keeps the heat in the hive, and you cannot raise young bees without heat. Give them all the rye meal they will carry in.

From this time till the flowers yield honey, all stock should have an abundance of honey or syrup, or breeding will not progress very rapidly. Those that need feeding can be fed in any manner the bee-keeper finds most convenient. A very good and cheap feeder can be made from an oyster can. At the restaurants they open them on the side. Procure these; take a piece of tin large enough to cover the opening; punch it full of small holes; in the center punch a half inch hole; now solder over the opening in the can, and it is then ready for use. Fill the can with syrup, stop the half inch hole with a cork, (rubber is the best) and lay it on top of the frame, with the perforated side down.

From one-fourth to one-half of a pound of sugar to a quart of water makes a very good spring feed, and saves bees the labor of carrying water. More anon.

T. G. MCGAW.

Warren Co., Ill.

#### REPLY TO H. A. EASON.

MRS. ELLEN S. TUPPER:—Permit me to inform you that I have received two copies of your journal for January, and, on examination, I am well pleased with it, believing that the NATIONAL has fallen into the right hands, such as will make it profitable to all intelligent apiarians.

In "Notes and Queries, page 13, first column, and also on page 14 there is a question by H. A. Eason. Having had considerable experience in such business, I will be bold enough to say that your answer to Mrs. S. A. Hill, on page 13, is correct in the main; yet it implies that such Italian queen de-

camped, or swarmed out, as I call it. The reason of this queen's leaving the hive, after being received by the bees, and becoming their reigning mother, is what Mrs. S. A. Hill would like to know. I apprehend the true cause is that one or more of the young queens have hatched out, or are ready to leave the cell, and, in order to prevent a mortal combat with one of the young black queens reared from the brood of the common queen, the Italian queen leaves the hive with a swarm. I have opened such hives often, and always found a young black queen hatched, and often three or four cells containing young black queens.

A fertile queen, whose abdomen is distended with eggs, has great fear of a young, unfertilized queen. The large and clumsy body of the fertile queen always makes her an easy prey to her youthful competitor. Hence, Italian queens often swarm out in from ten to sixteen days.

There is nothing particularly new in this first statement, yet, in connection with the inquiry on page 14 by H. A. Eason, we will find a correct and satisfactory answer, without compelling or forcing H. A. Eason's bees or queen to swarm. To tell Mr. Eason that his queen swarmed out and left, when he can see that no swarm ever left the hive is not a satisfactory answer.

I have had several cases precisely the same in my apiary. Some two or three years ago I introduced Italian queens and they laid eggs, and brood from the Italian queen matured; but in a short time after all the brood were of the common black stock, and the queen a common black queen the Italian last gave. The query was, from whence came those black queens, when none but Italian brood were in the combs? I first conjectured that by accident some young queen had missed her hive, and the bees permitting her to enter, in combat the young queen killed the old; and this theory gave the answer. But how it came that the

bees let a strange, unfertilized young queen into their hives was the query. I well knew, from sad experience, that they would catch such queens and kill them. This caused me to investigate, and, after careful observation, I found out that sometimes the bees will not permit the queen to destroy the cells commenced before the Italian queen was liberated; and thus young black queens mature and hatch, and if the old mother does not leave with a swarm, then her destruction is sure. The young queen finds her out, and a mortal combat ensues, in which the old queen is killed by stinging. This I saw with my own eyes, in one case, and in all such cases I found the cells from which such black queens emerged.

I once introduced a splendid Italian queen into a large colony. The bees received her kindly. In 24 hours this queen was liberated. In four or five days after, I opened the hive, and found the Italian queen all right and eggs in abundance and some 20 queen cells sealed and unsealed. Of course, I destroyed all of them, closed the hive, feeling joyful over my success. In three or four days after this first opening of the hive, I again opened the hive to get eggs to start Italian queens, and I again found a few cells started and sealed over, and I then looked up the queen, and found her all right. I lifted out every comb inside of this hive, and destroyed every cell, as I supposed. Feeling confident that now all was well, I closed my hive, and in about 16 or 18 days I again went to get eggs and young larvæ to start queens, and the bees were flying profusely. While observing them, in front of the hive I saw the queen tumbling down the inclined bottom board of the hive, and I at once caught her by the wing and lifted her up, and found a young black queen holding fast to the Italian queen. I shook the young queen off as soon as possible, but the job was done—the old mother lived but a few

minutes. The young queen flew on the entrance of the hive, entered unnoticed, and in six or eight days was laying eggs. The pure common black bees came forth, while the brood taken out for queens and all the eggs laid in the colony by the Italian queen for 12 or 14 days were pure Italian stock. This hive had been intentionally, at swarming time, separated six rods from any other stand. I opened the hive as soon as I could after the young queen entered, and took out every comb, and, to my surprise, I found a queen cell in one of the holes in the second comb from the edge of the hive. This comb contained no brood, but sealed honey; yet the queen cell was perfect, with the lid yet attached. This explained the whole matter to me; and ever since I find that when queens are lost, as in this case, young queens kill them.

All queen cells must be destroyed about the ninth day, or great loss will be the result, either by swarming out or stinging to death, as aforesaid. In swarming season, the queens swarm out in early spring, or late in the fall they are stung to death. This is a general rule in my experience. However, I have had a few instances of swarming out in early spring or late fall, and a few where queens were stung to death in the swarming season.

FREEMAN MOORE.

Carrollton, Ohio.

WE are compelled to ask our correspondents to condense their thoughts to the smallest possible compass. We are obliged to defer a large number of letters for want of room or time to revise them and apply the pruning-shears. We would also call attention to the notice to correspondents on the first page.

#### WINTERING IN NEW YORK.

I have kept bees for several years, but had never more than one swarm left in the spring. Last winter (1873) I lost them all. I bought a swarm of



Italian bees,—but they died in May. I bought another swarm of Italians in May, which swarmed the 20th of August. I hived them in a hive of full combs. They are alive yet. If I can save them by reading your good journal, it will be of some benefit to you. The old swarm is very weak already; of course, I will lose them. I think they have too much honey. It takes a good strong man to lift the hive, but the bees are most all dead. Tell me what to do, if you please.

CHARLES HACH.

Erie Co., N. Y.

### HOW SHOULD COMBS BE PLACED?

MRS. EDITRESS:—On page 17, January number of the JOURNAL, Mr. Bryan asks: "Can it make any difference to the bees whether the combs in a hive run from front to rear, or from side to side?"

I have always thought that it did make a difference to the bees, and have therefore made all my hives so as to have the frames run from front to rear. I make the entrance three-eighths of an inch deep, and, whether the hive is of the smallest size, holding eight frames, or of the large size, holding sixteen frames, I make the entrance the whole length of the front, and believe that by so doing a more perfect ventilation is secured. Each comb being in the same relative position to the entrance, receives therefrom its proportion of pure air. Besides the entrance above described, I make a one inch hole near the top of the front, which is all the ventilation I give them, and I have never known them to cluster outside the hive in the hottest weather. Of course, they do not need so large an entrance early in spring, or late in the season; therefore, when the busy season is over and the nights begin to be cool, the entrance is gradually closed from time to time until winter sets in, when it is reduced to from two to four inches in

length, according to the strength of the colony. Also, a perforated tin button is turned over the hole above mentioned. In early spring the entrance is further reduced, the strongest needing only about two inches space, and the weak only one-half or a quarter as much. The hole above is entirely closed with a piece of cloth or paper to prevent the escape of the warmth generated by the bees, as it is all needed in the hive at that season. As the weather gets warm, and the stocks become strong, the entrance is gradually enlarged until the whole length of entrance—two feet in the large hives—and also the one-inch hole are given them. I believe also that this arrangement of combs secures other advantages to the bees; viz: by giving them a more direct passage from the entrance to the various parts of the hive. But this may be only imagination, after all; and, as I have failed to explain it quite satisfactorily to myself, I shall not attempt to do so for others.

To his second question—"Can it make any difference whether the combs in the surplus arrangement run in the opposite direction from the comb in the broad chamber?"—I would answer, I have used them both ways, and find that when the combs in the surplus run parallel with those in the brood chamber the bees are much more liable to extend the combs down from the surplus into the brood chamber, especially if the spaces between the frames in the surplus come directly over those of the frames below; therefore, we prefer to have the frames above run across those below.

S. W. STEVENS.

Ridgefield, Conn.

ABOUT 159 pounds of honey were taken from beneath the chamber floor of an old house in Durham, Conn., recently, being the result of four years' labor of a swarm of bees which had gained access to the house under the roof-board.

# Editorial Department



Mrs. ELLEN S. TUPPER, Editor.

CORRESPONDING EDITORS:

L. C. WAITE, St. Louis, Missouri.

A. J. POPE, Indianapolis, Indiana.

Mrs THOMAS ATKINSON, Leesburg, Florida.

MARCH,

DES MOINES, IOWA.

1874.

## PROFITS OF BEE-KEEPING.

It is easy in this, as in all other business, to give isolated instances of wonderful success and great profits. A man in Cole county, Missouri, purchased, last spring, one stand of Italian bees, and carried it home in March. From that hive he now has an increase of seventeen good colonies, making eighteen with the old one. These can be sold at \$25 each. He has taken from the first swarm honey enough to pay for all the new hives occupied by the colonies. From several hives in my apiary, I have taken the past season one good swarm and one hundred pounds of choice honey each. The honey sold for twenty-five cents per pound; the new swarm is worth \$25. Thus from colonies worth \$25, I have received \$50 each, while the original hives are worth quite as much in the spring. Others report to me cases of greater yield even than this. One man has taken the past season 1,200 pounds choice surplus from eleven colonies of bees. He had no increase from them, the first part of the season being unfavorable. I have repeatedly averaged thirty pounds each from one hundred colonies in seasons that beekeepers generally considered poor. One woman, who commenced with two hives of Italian bees, two years ago, has increased to thirty good colonies, and sold more than honey enough to pay for all new hives. Two of the three seasons were called very poor. But while all instances of good success are reported, we hear little from

those who have met with loss or discouragement. No doubt there are such cases. It is true that many who have tried bee-keeping on a large scale have failed to make it pay. A number of such cases have been reported, but, in every instance, failure could easily be traced to one cause—the attempt to increase too rapidly. Forgetful of the golden rule of bee-keeping, “Have none but strong colonies,” they made so much haste to increase that they soon had none but weak ones, and, instead of attributing loss to this cause, the season was blamed, or it was hastily concluded that they had too many bees for their range. That hundreds of strong colonies will live and store surplus for their owner where one weak one will starve, is now proved beyond a doubt.

In Germany, many bee-keepers find one, two, and three hundred colonies a source of generous profit, and in this country there are a large number of apiaries whose owners make the business pay every season. Adam Guin, of Jefferson, Wisconsin, has on an average five hundred colonies, often as many as seven hundred; and, though his region of country is not rich in honey plants, he makes them yield large returns every year. There is no doubt that bees pay well whenever managed with judgment. They need little care, no provision is necessary for their harvest—they literally “keep themselves,” and yield rich surplus besides, in ordinary years.

In towns and villages, one who owns little land, if he have room on which



to set a few hives, may have them, without offense to any, and they will gather supplies of choice honey which would otherwise be wasted. In Europe nearly every peasant has a few hives of bees, and in many cases these bees procure for them the only luxuries they possess.

A colony, if properly managed, will every year give another colony without injuring itself; indeed, it is really better, because it exchanges in swarming its old for a new queen. The capital invested in the hive is thus doubled every season, giving one hundred per cent. on the money, whether the hive be worth five dollars or twenty-five. In average seasons, from thirty to fifty pounds of honey may be obtained also from both the old and new colony. When the number increases too much, part may be sold; or, if it is preferred to have less increase and more surplus honey, they may be easily managed to secure that end. Does anything pay better than this? In almost every country village in the land, to say nothing of the cities, honey is a high-priced luxury, while at the same time, rich honey harvests all around are unappropriated. This should not be. And while we do not advise any to engage in bee-keeping on a large scale, unless sure they possess an aptitude for the business, we would urge every dweller in the country, and many in towns and suburbs of the cities, to keep bees enough to furnish honey. Only one rule is necessary to be observed to insure success, whether you have few hives or many: "Keep every colony always strong in numbers." When in this condition, they are prepared to winter well, to gather honey, if it is abundant, to rear brood to keep their numbers good, and if adverse seasons come, wait, without injury, until better times.

THE word honey is undoubtedly derived from the Hebrew *ghoneg*, which means delight; an appropriate title.

## BEE PASTURAGE.

It is one of the many beautiful arrangements of nature that honey is abundant in so many plants which grow and flourish in all parts of the globe. There are few places where man can dwell where honey-yielding plants are not found in abundance.

Many have very limited ideas of the sources from which bees obtain their supplies, or the distance to which they roam to find them. In newly settled timber countries, the trees abound with early and late bloom. The willow, hazel, elm, and white maple appear almost as soon as the weather permits the bees to fly. These are followed by the rock maple, and a succession of wild fruits and thorn. Then come the rich blossoms of the several varieties of locust, and the myriads of wild flowers that bloom in the shade. Then blossoms in many sections the linden or basswood tree, furnishing great quantities of purest and most delicious honey. In other parts of the forest, the Christmas and tulip trees afford beautiful supplies.

Far from forests, on virgin prairies, are found a countless variety of flowers, from those of early spring to the gorgeous aster and golden-rod of autumn.

As a country becomes settled and these native supplies are less bountiful, there follows the plow the white clover, richer in pure honey than almost any other plant. When wild fruit becomes scarce, orchards and plantations of small fruit afford pasturage for the bee in its place—corn tassels yield the pollen which they need, and almost every plant of the garden or field affords honey, more or less valuable; and in place of the fall flowers of the prairie comes the buckwheat sown by the thrifty farmer.

While our own country is specially rich in honey-producing plants, there are as yet very few parts of it where a tithe of the nectar is appropriated.

To those who have looked into the

matter, it is amusing to hear fears expressed that certain parts of the country are becoming overstocked with bees. In Russia, where the seasons are unpropitious, and the bee pasturage far inferior to ours, it is not uncommon to find apiaries numbering from five hundred to one thousand colonies in one place. Lunenburg, a country so barren as to be called the Arabia of German, has profit enough from the bees kept within its borders to pay all the taxes assessed on its inhabitants, and a surplus besides.

Those who have fears of any part of our country being overstocked, not only have a contracted idea of the plants which afford honey, but also fail to consider the manner in which it is secreted.

Oetl, a successful apiarian of Germany, whose rule is to keep none but strong colonies, says that in twenty years no season occurred when his bees did not gather ample supplies. He thus clearly explains the reason why large, strong colonies will always find ample stores,

"When a large flock of sheep is grazing on a limited area, there may soon be a deficiency of pasturage. But this cannot be said of honey, however large the force of bees to gather it.

"To-day, when the air is moist and warm, the plants may yield a superabundance of nectar, while to-morrow being cold and wet, there may be a total want of it. Every cold night checks the flow of honey, and every clear, warm day, re-opens the fountain. The flowers expanded to-day must be visited while open, for if left to wither the stores are lost."

Thus we see that bees cannot collect to-morrow what is left ungathered to-day, as sheep may graze hereafter on the pasturage they do not need now.

Strong colonies and large apiaries are in a position to collect ample stores where forage suddenly abounds, while by patient industry and force of numbers they may gather a surplus, even

when the supply is small. I this light of the matter, the most able apiarians of Europe resolved in convention that "a district of country embracing meadow, arable land, orchards and forests, can never be overstocked with strong colonies of bees."

There are a few instances in this country where large apiaries flourish in regions like Wisconsin, that cannot compare with Missouri, Iowa, and more Southern States, in resources. In these sections, from three to five, and even seven hundred hives are kept in one place, and the bees gather their own stores and a surplus, in a few weeks' flow of honey, whose main source is the linden bloom.

Much may be done to increase the pasturage in some places by cultivating crops that, while they are useful for other purposes, yield honey at such times as it is needed. Plants which blossom only, yet at the same time with the linden or white clover, where these abound, would be of little value, because, while these yield honey, there is more secreted in good weather than any number of bees can appropriate. Anything which yields honey between the failure of white clover and the blossoming of buckwheat is desirable, as it will fill a space when in some places no honey is found.

Alsike, or Swedish clover, is being introduced into many parts of the country, and is found to be exceedingly rich in honey, and also a valuable forage crop. The Italian bee has an advantage over the common variety in being able to obtain honey from the red clover in times of scarcity.

In nearly all parts of the United States it will be found true that the honey harvest is piteous, but the laborers are few. May the time soon come when, by intelligent care, these wonderful little workers may be multiplied a thousand-fold, and the honey appropriated which now "wastes its sweetness on the desert air."



## Notes AND Queries

I am just beginning to practice bee culture a little; have six weak stocks; am adopting a plan somewhat new—to me at least—for wintering, viz I took six boxes, right size for my frames, lined them all over inside with cotton batting, then outside of that with brown sheeting fastened to the hive with tacks; placed four thicknesses of newspaper on bottom; left the entrance free; covered it—the entrance—with wire cloth; hung frames in this hive, and covered with heavy bee quilt. They did not have more than ten pounds of honey on an average. I am feeding lightly. They are, so far as I can judge, doing well. They are raising some brood now. I fear they may suffer for water; think I shall pour a little in some of the outside combs soon.

I forgot to say they are in the cellar, where it is nearly free from frost. If I get them through safely, I shall feel that it was because of their warm quarters. Is there any danger of keeping them too warm?

I am taking a great interest in the subject of bee culture; only regret that I did not begin twenty years ago. Any suggestions through the JOURNAL or otherwise will be gratefully received by

J. W. MARGRAVE.

Nebraska,

We think you are right in the opinion that the way in which you have packed the bees will save them. In no way except a very warm way can weak colonies be wintered.

We do not think they will suffer for want of water. Shall be very glad to have a report from you as to the state they are in next month.

Please answer in the JOURNAL—

How does it damage bees for the lower edge of combs to become moldy in winter? Will the bees clean them?

Will bees begin breeding in cellar?

How is the best plan to feed to induce early breeding?

Would you think a queen as valuable with clipped wings as with natural ones?

H. F. S.

Shelby Co., Ill.

It is not well to have the state of the atmosphere in the cellar such that the combs will mold; but there is no special danger or harm in using moldy combs. The bees will clean them as soon as they are strong enough to need them. We have put a moldy comb,

for experiment sake, between two brood combs in a strong colony, and in twenty-four hours found it perfectly clean, and eggs deposited in the cells.

Bees, in the proper condition, will begin to rear brood in the cellar. We seldom take a hive out in the spring that has not some brood, even when nothing has done to encourage it. To induce early breeding, we would confine the heat to the hive as much as possible; take away all empty sheets of comb and feed the bees diluted honey or syrup in such a manner that the bees must carry it to the combs from the cup, or else the most distant part of the hive from the brood. Further directions will be given in the next number.

We never clip queens' wings, unless especially requested by a customer. All our experience goes to prove that queens are not as valuable, though we had never thought of it in the light in which Adair presents it, until we saw his paper. Other bee-keepers differ from us, as will be seen in this JOURNAL.

I am in receipt of the February number of the JOURNAL, and am delighted with it. I have been keeping bees for two years, and I will give my experience.

I bought three stands of common bees, and last June I bought an Italian queen from you, which I introduced with good success, and during the season I succeeded in Italianizing four out of my five colonies. The early part of last season was very good for honey, though the latter part was extremely poor; so that but two of my colonies put up stores sufficient for the winter.

My winter treatment:—As cold weather set in, I placed my hives as close together as they would set. Then I drove stakes around them, some ten inches from the hives. Then I filled the space between the stakes and the hives with straw up to the top of the hives, packing it close. Then I placed corn-fodder on the top, which kept them dry. In February I opened them to see in what condition they were in. I found them all in good condition; two of them had plenty of honey by them; the other three had nearly eaten all of their stores up. I put the two back in their place, and took the other three into the house, to wait a warm day to let them out, which came the second day of March. Then I took them out and opened them, and began to feed them on white sugar wet

with warm water, just enough to make it thick or soggy, placing it in the upper part of the hive. They began on it like they had not had anything to eat for a week. Then I took out the other two. All showed some signs of dysentery except one colony, which I think has a pure Italian queen, from the looks of the bees, and they had no dysentery whatever, and were ready to fight for their stores.

I am favorably impressed with the Italian bees. I find them stronger and more active than the black bees. I am using the Buckeye hive, and I am thinking of using a hive with an open top.

Now, I wish to ask you how you take out frames from the top without the first one rubbing and grinding the bees as you take it out? J. M. E.

Moberly, Mo.

We find no trouble in any style of hive we use. We give just the right space between the frames, and then when we wish to take out one we move several on each side of it a little closer together, and so make room to lift the desired one out. If combs are built at night, as they always will be if proper care is given, there is no trouble.

Too much room between the frames is as bad as too little.

Bees are wintering very well. My bees netted me \$7 a swarm last year, or about 40 per cent. on the money invested.

J. E. DANIELS.

We are doing something in apiculture in this vicinity. There are not less than 500 swarms in this county. I began last year with five; increased to twenty, and took 460 pounds of extracted honey. Mr. Bingham began last spring with 89, and has now 191, and obtained over 6,000 pounds of box honey. He is no novice in apiculture. He is pursuing some original investigations in the science of apiculture, and I predict that he will be heard from in the future. Nine-tenths of his bees are pure native black bees. Weather this winter very mild, and bees so far in good order.

JULIUS TOMLINSON.

Michigan.

We are glad to hear this good report from Michigan, and hope we shall have accounts of the original investigations of which Mr. Tomlinson speaks. We can all learn much, both in theory and practice. We believe greater advances will be made the next ten years than have been made in the ten years that are passed.

I have been told that you were once a resident of this town, and perhaps you would like to know how the bees have done here, in this northeastern

corner of Uncle Sam's farm. Well, I do not know so much about what the bees have done here of my own knowledge, but am told by one of our honey dealers here that Aroostook Co. produced the past summer of '73, in box honey, over twenty tons; and that, with bees enough to gather it, there might be one hundred tons collected.

I have been thinking I should like to learn how to rear Italian queens, and, as I learn that you are competent in their management, I should like to have a little advice from you, if you feel disposed to instruct.

MISS Z. A. DRAKE.

Houlton, Maine.

We are glad to hear from the old home where we lived thirty years ago. We know that bees will do as well in that country as in any part of the world. We think you will find what you need in the JOURNAL.

Are basswood and linn the same, and, if not, is basswood good for bees? There is plenty of basswood within one mile of this place. Will you give your opinion in the JOURNAL as to the best food,—that is, the best for honey making—buckwheat, corn, linn or basswood, mustard. Alsike, (by the way, I have not got my Alsike seed yet), etc. Do you think that catnip is good, and where can one procure seed?

MRS. J. W. PEEBLES.

Linn, or linden, is one name for basswood, and in some localities is the best bee pasturage. All the plants you name are good honey-producing plants. Catnip yields much honey; but we do not advocate sowing anything for honey that has no other use. Alsike and mustard both pay, aside from their honey value.

This spring father gave me two hives of Italians. I have now five hives, and sold \$10 worth of honey during the summer.

GEO. A. JONES.

Glen Farm.

An excellent report for a young beginner. Keep on in the business intelligently, and you will make more money out of bees than your father can out of any branch of his farming, in proportion to the expense involved.

I feel it my duty to give the bee-keepers of this country an account of the ignorance of some of our honey dealers here, and hope the man herein mentioned may receive, through the press, the full benefit of his fool-hardiness.

The facts are as follows: I sold to Mr. A. J. W., of Ionia City, Ionia county, Michigan, two dozen cans of pure extracted honey, labeled and put up in nice shape. He never had seen any pure honey



before, and thought it manufactured honey, and has arrested me for selling an impure, worthless article, or for obtaining money by fraud. I will say to bee-keepers that they need have no fears but that I shall protect the reputation of our extracted honey in these parts. There has one can gone to Prof. Duffield, at Ann Arbor, Michigan, for analysis. My trial comes off February 18th, when I would like to give full particulars if I knew it would be acceptable. If not too much trouble, let me hear from you.

Carson City, Mich.

H. M. ROOP.

We are strongly reminded by this account of the city lady, who, on changing her milkman, complained to him, after a week's trial, of the quality of the milk he brought her. She wanted no more of his milk—"a thick yellow scum" rose over it, if it stood. She wanted "the real sky-blue article."

Please tell me whether pine is good for beehives.

W. F. SALKELD.

Champaign County, Ohio.

We regard pine as the best lumber that can be used for bee hives. Any other kind of lumber may be used, but not to so good an advantage.

I see a good many inquiring through the BEE JOURNAL whether bee-keeping will pay or not. I, for one, can give my last season's experience and my observations as to whether it will pay or not.

My experience is this: I commenced with four stocks last spring; increased to nine, and got 600 pounds of surplus honey. Now, if I had reduced my stocks down to the same number that I had in the spring,—that is, four,—and taken the honey from the other five stocks, which would have been 200 pounds, it would have given me 800 pounds of honey, which, at twenty cents a pound, would be \$160. Now, deduct \$20 for interest on capital and time employed, and we have \$140, which is \$35 for each stock that I had in the spring; or I could have sold the five stocks for \$15 apiece, which would have paid still better. I know of no other investment that I could have made that would have paid as well.

Now, for my observations: Bees are generally kept in my section of the country after the old system. The general report is that the bees did no good last season; very little or no increase, and no surplus honey. So, bee-keeping with some did not pay. Their bees were a nuisance to them. It was capital lost.

Now, my opinion is that bee-keeping is like every other business: to make it pay it requires attention. The more attention the better it will pay. No person plants a crop of grain without expecting to give it care and attention. No person ex-

pects to raise stock without taking care of them, and in the winter season feeding and watering them twice a day. Bees do not require such close attention, especially in the winter season.

So, my conclusions are that bee-keeping will pay if we give it proper attention, and will not pay without.

ED. WELLINGTON.

Riverton, Iowa.

Mr. Wellington's record is a good one, and shows us how care pays with bees, and that the proper management will give good fair profit, even in seasons usually called poor.

Is it possible to keep Italian bees pure in the midst of or near black bees? I would like to try the Italians, but there are many black bees in my neighborhood.

E. J.

Humboldt County, Iowa.

In answer to this query, we give the following, which we sent some years ago to the *Prairie Farmer*. We have since seen many instances of the same kind. To keep them pure needs care and watching, but with movable comb hives it can be done. We shall have more on this point in future numbers:

"A man near Gotha, Germany, purchased two stands of Italian bees five years ago, and in the spring of 1866 had increased his number to twenty-five stands, not one queen of which had mated with black drones, though hundreds of common colonies were within two miles of him. His secret is to keep his colonies always very strong, not aiming at a rapid increase, and making his swarms very early. The instinct of the Italians is to rear broods earlier than the other bee, and they rear brood much faster in the spring, so that it is safe to 'do' the swarming before the black drones appear, and thus secure the impregnation of your young queens by Italian drones."

Tell Mr. Sperring, Humboldt, Iowa, that his queen is probably valueless. We once kept such a queen from May until September, and she was as prolific as any queen, but not a larvæ ever hatched from one of her eggs; why we are not able to explain.

J. H. TOWNLEY.

Bees did well here the past season, although it was very dry part of the time. They have wintered well so far, where they are protected.

E. S. C.

Greene county, N. Y.

I never tried wintering bees in a cellar until this winter. My cellar is nice and dry; bees and combs are nice and clean. But the bees fly out, about 400 or 500 bees per day from 83 swarms.



They buzz around on the cement floor a little while, then die. I try to keep the thermometer at about 40°.

Is it natural for them to fly out of the hive to die, or do I keep them too warm?

Castalia, Ohio.

N. E. PRENTICE.

Bees never die in the hive if they can get out of it; but they ought not to die at that rate. We would leave the entrance from the house to the cellar open at nights for a little while, or in some way make it cooler.

Is it perfectly dark? That is absolutely necessary.

Some two years ago I got bee "on the brain," and purchased sixteen colonies of bees in the old Langstroth hives, and a township right to make, use, and sell the American hives. Being ignorant in regard to the management of bees, I was induced to let a neighbor beeist take them on shares, with the exception of three which I put in my cellar, two of which came out in good condition in the spring and have done well; but the thirteen let out on shares all died. The last season I increased them to six hives, and purchased twenty-three more hives, all of which I have in my cellar, making twenty-nine stands in all. All but eight or nine stands are Italians, and those are the common black bees. My cellar is dry and dark, with but very little ventilation. Being under the kitchen floor, the noise made is distinctly heard below, but no jar is or can be felt by the bees.

I never handled bees before, but I like it very much, and would like to learn more about it, and write to ask you to inform me which is the best bee-keepers' journal or magazine, as I want to subscribe for one; also the best honey extractor—where to obtain the same, and the price thereof, together with gloves suitable for handling bees, with any and all information you may be disposed to give me as a new beginner.

I expect to get up a large stock of bees, if successful.

When is the best time to transfer bees, and will noise affect them or do them injury?

J. H. TALBOTT.

Story County, Iowa.

We are not supposed to be a judge as to what is the best bee journal. If ours is not the best, we will not stop improving until it is as near perfect as possible. We can send you either of the others. All the extractors advertised are good. Noise will not hurt your bees. You will soon learn to dispense with gloves; until you do, woolen gloves dipped into water when you are about to use them answer ev-

ery purpose. The best time to transfer bees is about fruit blooming season.

If you can find the time, will you please give me your opinion on the following questions:

I have bought two hives of Italian bees which are to be shipped to my new home in Kansas in the spring, a distance of 500 miles. I saw an article in the December number of your journal in favor of shipping bees. You have probably had experience, do you think there is a probability of my bees going through in good condition? They are in the improved Langstroth hives.

Could I take them in a spring wagon that distance at that season? They are in a good cellar now.

W. H. GOODELL.

We would not advise shipping bees so long a distance in the spring, unless the roads are unusually good, though there is no difficulty except in the state of the roads. Between the 1st of March and August bees may be moved with safety in any way, if ordinary caution is used.

In winter, when it is cold, the combs are very brittle, and not in condition to be moved.

Can two queens be wintered successfully in a common sized hive by dividing bees, brood, and honey and placing a partition?

MRS. ELIZABETH SNIDER.

Coles County, Ill.

We have often wintered bees in this way. Be sure to have the parts of the hive entirely separate so that the queens may not be able to get together or the bees pass through any crevice from one side to the other.

Being in need of a little more information in regard to the care of my bees, I turn to you as the one best capable of instructing one who is really a novice in the art.

When I first wrote you, I had six colonies of black bees in the cellar, in the old box hives. I had then made up my mind to turn my attention more particularly to the subject, and have since purchased six colonies of Italians and placed them in the same cellar, which is dark, dry, and sufficiently ventilated.

New, what I wish to know is this: Will it be safe to place both kinds of bees in our yard, some distance apart, and Italianize the black ones as fast as possible? If it will in no way injure the Italians, I would like to do so; but if there is danger from the black drones, I would rather take them somewhere else until I can raise some queens and



have acquired enough experience to put them in movable comb hives, where they can be Italianized.

I want to do everything as near right as possible, that success may be the more certain.

ELIZABETH CARPENTER.

Carroll County, Ill.

There is no trouble in putting your black bees in the same yard with the Italians, if very early in the spring, *before black drones appear*, you rear queens and give to the black colonies after killing their own.

There are instances where Italians have been kept pure for years in the vicinity of black bees, by making all new colonies, and rearing all the queens necessary before there were any black drones.

The fact that Italians rear drones two weeks in advance of black bees, under the same conditions of season and weather, makes this easy to do if one is willing to take pains to secure the desired end.

Would it be any better to have more than nine frames in the Langstroth & Engle hive, when the object is to get box honey, and the extractor used to keep the queen from being cramped?

S. L. VAIL.

Keokuk County, Iowa.

Nine frames are enough when the object is to make box honey.

I want to attend the next National Convention. Will there probably be reduced fare? Will the city entertain the Convention? Please answer through your paper.

J. G. TETER.

Minnesota.

It is too soon to answer definitely with regard to reduced fare to and from the next Convention. The Society thought they were more likely to obtain favors at Pittsburg than any other place. The President elect is a live man, and all that can be done to secure accommodation will be done.

I notice the advertisement of ———, of ——— still appears in your journal, which I am sure you would not permit if you knew the man and for what purpose he advertises. I have been swindled out of \$6 by him. I wrote to him; he answered my letter promptly, sent a price list, etc., and I ordered two queens, and sent him a bank draft to pay for them; but can't hear from him or the queens since, only by the postmaster at Illiopolis.

He says that he receives a great many letters complaining of sending ——— money, but getting nothing in return for it.

Now, I would not injure any honest man's business, by any means; but I believe this man is a swindler. If not, why does he "dry up" as soon as he gets your money? I will enclose his letter to me.

My bees are in the cellar, all right now; think they will come through safely. I put them in the cellar on the 1st of November—rather earlier than I like to, but it was cold. I hoped that I might have at least one stand of pure Italians in the spring from one of the three queens that I paid for.

A. J. BIGELOW.

Poweshick Co., Iowa.

We cannot, of our own knowledge, recommend all that advertise queens in our columns as honorable dealers; but when such positive charges as these come we shall drop the advertisement at once. We have written to the man whose name Mr. Bigelow gives, and hope he will satisfy him that he intended no confidence game.

I have bought an Italian queen, and would like to have her sent as early as possible, for I have a weak, queenless colony in which I want to put her and the bees that come with her.

R. W.

Kentland, Ind.

You will find that a poor plan. We would advise you to give the Italian queen to as good a stock as you have. You may take the queen from that one, and give to the weak and queenless one, and perhaps save it. We would never give a choice queen to a stock that had been long queenless.

I noticed last season that my bees were very busy on sunflowers in my garden, and that every one had large loads of pollen. Shall raise more sunflowers this season.

A. W. DAVIS.

Walworth, Wis.

We esteem sunflowers valuable bee plants, though we do not think they furnish much honey—only pollen. On the prairie, they are worth raising, being valuable as shade for chickens. The seed also is valuable for food for fowls, and the stalks make good bean-poles, and are not to be despised for fuel when dry. It will pay to have a patch of sunflowers.

I noticed the past summer that my bees would fill boxes where the cells run lengthways of the

comb below much sooner than where it was the reverse, even where the former were put on several days after the latter. Hope to hear from others.

S. L. VAIL.

Keokuk Co., Iowa.

As you have just commenced publishing a bee journal, I would make the suggestion that you put in a department for those that are in need of first principles, and give each lesson a month in advance of the season, in order that it can be studied and digested, so as to be understood when time to do it arrives. The four bee papers I take all have good ideas and instruction in them; but the verdant beginners (many of them) need the A B C, plain and connected, so that they will not have to sift first principles from a mass of other matter that they don't know enough yet to understand. I expect to travel considerably this season, and hope to aid in apiculture by recommending bee literature to bee-keepers. A. W. DAVIS.

Walworth, Wis.

Bees are in fine condition in cellars, houses, and on their summer stands. There was very little honey last fall, on account of drouth. Small colonies not cared for died of starvation. There is no case of disease this winter among the bees, and there is none of that kind of atmosphere to give it to them up to the time of writing.

WM. FRANKLIN.

Vevey, Ind.

Bees are coming through this winter good and strong. The New England aster is coming in here, and I am much pleased with it as a honey plant. The honey has a beautiful flavor, and is most as thick as wax.

I have high hopes of your success as editress of your journal.

C. HANCOCK.

Albion, Mich.

We hear others speak of this aster as a good honey plant. Can some botanist class it for us? Is it not nearly allied to the Iowa aster?

Is there any reason for charging higher prices for Italian queens in spring than at any other time? What makes them better then? What do you think of the \$1 queens that several persons are advertising? Are they as good as the higher priced ones? If not, what makes the difference?

SARAH J.

Nebraska.

The queens sent out in early spring are no better than those sent out later—in one respect, not so good, for they are older; but they are in demand by persons who wish to rear other queens from them early—some to Italianize

their own apary; others to rear queens from for sale.

The one who sells them takes them from a full colony at a time when they cannot easily be easily replaced, and they really constitute the value of the colony. We had better sell two in June at the same price than one in April or early May. This fact constitutes their value to the seller, and if the one who buys is prepared to make use of them, he can also "get his money back" from them. The best time for a beginner to buy is after this early demand ceases.

We will neither condemn nor approve the queens that others advertise. We have enough to do in attending to our own. Every one is at liberty to sell queens for \$1 each if he chooses. We have found ours to give us but very small pay for our labor at much higher prices. When we can't sell at these prices, we shall keep them ourselves, raise workers from them, and sell honey. But we do not claim to know much about rearing queens cheaply. In this, as in other branches of the business, we MAY be left far behind.

There are a great many movable comb hives in use, many of them of little value practically. Now, I, for one, and I think hundreds of others, would like to know what form and style of hive you have adopted, after your long years of experience in keeping and handling bees. It is quite an object to get our hives cheap and simple. I think many of them expensive and too complicated. We have three kinds not in use. Our bees are in the American hive, and in the cellar, with the caps off; nothing over the bees but the quilt, nor has there been this winter. Yet some of the strongest are clustered on the edges of the frames, and sometimes nearly cover the observation glass, but are quiet. Are they too warm, or why do they do that? The cellar is very dry; the entrance is closed to about one-half inch; one frame taken out last fall; the others set apart; not a spoonful of dead bees on the bottom board yet. They were set in the cellar the 1st of November.

A. J. BIGELOW.

Grinnell, Iowa.

If the bees have died no more than you say, they are in good order, though we can hardly tell why they cluster in the manner described. Probably a



little cool, fresh air admitted to the cellar would bring them together quickly.

With regard to hives, we would say that we use a square frame about 12 inches each way. These frames we hang in a plain hive, made large enough to hold, in some cases, ten; in others, 15, 18, and 20 frames. When the hives are made to hold only ten frames, they are made without bottom boards, and so arranged that any hive will sit snugly above any other one. In this way the upper one can be used to hold frames, or as a cover for surplus boxes when box honey is desired. The cap we make simply a lid, like a box or trunk cover; but any kind of cap can be used that is preferred. We use no honey boards, keeping the quilt on top of the frames of all hives, until a top hive is put on, and then keep the quilt over the top one.

We receive frequent enquiries for sample hives, such as we prefer, and are glad to send them to those who wish them at cost; but any one may make them by these directions we think. We repeat the advice often given, to have all hives in any apiary alike, so that every frame will fit any hive. All observation glasses, slides, traps, blocks, etc., are unnecessary—many of them positively injurious. The movable comb, in as plain a case as possible, well made and well painted, with sufficient size for all purposes, is all that is essential to successful bee-keeping.

Additional ornament is to please the taste of the owner—will not help the bees.

Can you tell me where to procure rape seed, vetch seed, and basswood seed or scions, and the price?

W. S. PENICK.

Alabama.

Will some one answer as to the seeds? You will find basswood scions advertised in this number.

A GOOD REPORT.—Mr. Geo. Deever, a well known farmer of Plum Valley, Waseca County, Minnesota, informs me that he found a swarm of bees on

a bush, in the summer of 1867, and that he has sold from them eleven hundred and eighty dollars' worth of bees and honey, and has three good swarms left. Mr. Deever keeps an exact account of all sales, but makes no account of what honey is used in his own family. He has not lost a single swarm in wintering, and but one any way, and that by swarming.

J. W. HOSMER.

Janesville, Minn.

Our bees in this region are pretty much all dying out, owing, I suppose, to the wet weather last summer. I feed mine every pleasant day with syrup and rye meal, yet we have lost several stocks, from starvation, I suppose. I am very much interested in the little pets, and am determined to make the business a success, if possible. I shall let you know how they get along when spring opens.

I. APPLEWHITE.

Is it true that the queen does not leave the hive only on her bridal tour? I think it's a mistaken idea; for all other bees come out to relieve their necessities, and, of course, she must do the same a good many times during the summer, and may be the cause, many times, of bees leaving their hives in early spring. It looks so to me; am I correct?

Then, again, do bees eat grapes? I have no faith in it, unless some wasp or other insect eat through the skin first. I wish that where it does occur some scientific man would make a close examination, and report.

A. WILSON.

Marcellus.

We do not think the queen leaves the hive, we know ours are not in the habit of doing it. Probably the bees remove her excrement.

We are sure that one cause of bees leaving the hive in early spring is that when they are few in number, and all go out at once for a flight, the empty hive alarms the queen, and she follows. A proper attention, we believe, will prevent this trouble. There was some interesting discussion upon this point at the Convention, at Louisville, as will be seen in report.

We have never seen bees injure grapes; still, we will not say they cannot, when we remember that they cut rock candy, that certainly requires more power to pierce than the skin of the grape.

I noticed in your question department a letter from J. W. Sperring, to which you invite an answer. As I had a case about the time at which he writes, which I think is similar to it, I will give



my opinion with regard to it for what it is worth. I introduced an Italian queen into a stock from which I had taken a swarm a few days before. The stock was then deficient in bees, but had considerable brood. The bees reared only about half the brood she produced, and she produced about twice as much as her mother was doing when I removed her. But when more bees were hatched, and honey became abundant, they reared all of her brood.

The instincts of the Italian and of the black bee do not quite correspond, the latter being not so much inclined to rear brood during a scarcity of honey,—especially when weak in numbers,—as the former; and, as Mr. Sperring's colony was weak, and little honey was being gathered, they could not be persuaded to rear any brood, notwithstanding the Italian queen, that did not see things in the same light, tried to impose it upon them. If he had fed his bees, I think the result would have been satisfactory.

T. W. LIVINGSTON.

Washington Co., Iowa.

We think Mr. Livingston's explanation correct. It is the only solution we can give to the question.

Do you advise feeding bees out of doers, or rather outside the hives, as I see "Novice" does? It will be done every day, but I have always tho't it condemned by Langstroth, Quinby, and others of experience.

MARY L.

Kansas.

We do not advise it, and we think "Novice" only advises the feeding of dry sugar. Even this we know is not safe, for several reasons:

1. The bees waste it, so that it will not go as far, by one-half, as the same amount will if made into syrup or candy,

2. It will promote robbery, we know, for we have tried it.

3. You will have to feed all your neighbors' bees within two miles, after they first receive intelligence of its whereabouts. Moreover, they will incline to hang about the spot, even after honey is abundant, and be on hand to attack any weak colony.

The only thing we advise to feed outside the hives is rye meal; even then we would not put it in the close vicinity of any hive.

There is a wild plant that grows about here that I think very much of. The common name is figwort; botanical name, *scrophularia nodosa*. It blooms from July 10th till frost, and bees work

stronger on it than on any other plant I know of, and at all times of day. I will send you some of the seed to try it if it does not grow near you.

The past three years have been very bad for bees in this section, last winter especially so. I lost 27 out of 61, the first loss I ever sustained in wintering bees worth mentioning, and then the loss was occasioned by the queens, leaving the hives in March—something new to me.

Also, can you give me the address of some establishment where they manufacture honey jars?  
J. G. THOMPSON.

Champaign Co., Ill.

We shall be glad to receive some of the seed you mention, though we think it does grow here. You will see an article of interest in the February JOURNAL respecting the loss of queens. We sent you some circulars from glass houses. Some of them will advertise in the JOURNAL soon, we judge.

I notice in *Gleanings* that "Novice" recommends some lady in the South to go into the queen rearing business, giving her the assurance that she can rear 1,000 in a season, and sell them also. Does not this savor a little of the 'humbugs' he so freely condemns in others? I have been rearing queens for years, and never yet succeeded in rearing half of one thousand in a season; and what I did raise cost me more than \$3 each in time and honey, and I could not sell them at any price. Has friend Novice ever raised queens on a large scale? If not, I advise him, free gratis for nothing, to try it one year before advising others much about it. He has acknowledged some great failures in other branches of the business, but there is a bigger one in store for him on this \$1.00 queen—I was going to say a disagreeable word there, so substitute another—business. I shall not enter his lists, and agree to rear queens for \$1 or \$2 each. If others do, they will come out about as Johnson did last year, and he had, I verily believe, both experience and honesty to help him.  
C. J.

Monroe Co., Iowa.

I see Novice, in *Gleanings*, claims patent hives with bee charms, etc. Is this just? I think not. There is little good attempted in this world without some prospect of individual gain, and I believe we should never have reached our present stage of perfection without patent hives. To condemn all, or even to throw all open to the public, seems to us unjust and senseless.

Would Novice ever have reached his present perfect stage of bee-keeping—in his own opinion—if he had not first been attracted by somebody's patent hive, or does he sell hives, patent corners, extractors, etc., at actual cost, through benevolent motives? If so, he should be canonized. Who is to decide for us what things shall be sold, and what things given away?

A passage of Scripture often comes to my mind



when reading Novice: "Other men labored, and ye have entered into their labors." Don't publish this if it is offensive. *I have no patent hive.*

DART.

Minnesota.

We do not think Novice can object to this good-natured criticism; so, in it goes. We must say the matter strikes us in much the same light that it does our correspondents.

We have never been slow to acknowledge our great indebtedness to patent hives, and to class them all with humbugs is neither just nor right. We believe, too, that a "laborer is worthy of his hire," and, while anything is patented, an improvement in bee-hives may be, without being, in any sense, a humbug.

Who shall decide for us what are improvements? We think the successful practical bee-keepers are the ones to do it.

Weather here is mild. My bees are carrying in pollen; see them on flowers in the yards. We have various kinds of plants and shrubs that bloom nearly all winter. We winter on summer stands. Our bees are seldom kept in by the cold weather more than four or five days at a time.

M. P.

Pine Bluff, Arkansas.

We would be glad of an account as to how soon your bees commence brood rearing—how great is the usual annual increase and yield per colony from each hive on an average? that we may form some idea as to the advantages of your open winters over our cold ones in promoting prosperous bee-keeping. In such a delightful climate it would seem as if bees ought to do wonders.

I enclose you the following extracts from an anonymous writer in a Western paper. Will you give us your idea as to his argument in favor of wintering bees out of doors? Is it true that bees are less prosperous after confinement? I hope you will publish the extracts. The ideas are novel, to say the least.

C. T. H.

"The bees after long confinement are less prosperous in the early part of the season. \* \* \*  
\* \* \* Bees need sunshine and pure air as much as other animals. What would you think of a person shutting up his pigs or calves in a dark place, four months in the year, just to save a small quantity of food? If they lived through

they would be of little value afterward. I tried in-door wintering, and as I have said before, where all conditions are favorable, a few pounds of honey may be saved. This is the only argument put forward in support of the practice, so far as I am apprised. My opinion is that the most successful mode of wintering bees is upon summer stands. Give plenty of honey and good upward ventilation to carry off moisture which will accumulate upon combs from respiration. \* \* \* Since the time that Sampson discovered them in the carcass of a defunct lion, bees have naturally done well, until the cupidity of man sought to coin money from their culture. The curse still holds good that, 'By the sweat of thy brow shalt thou eat bread. MORE ANON.'

Oak Lawn.

We publish the extracts, as requested, but can not "answer the arguments," for there seems to be none made.

The assertion that bees are less prosperous after being taken from the cellar is not true in our experience, but on the contrary, our bees have always been much more prosperous than those of neighbors near by, who left them out of doors; and we have tried repeatedly colonies of equal strength, putting one in the cellar and leaving the other out, always with the same result—greatly in favor of the one housed.

To compare bees with hogs and calves is manifestly unjust, since they have in no respect the same nature. The calves must eat to live—the bees, if kept warm, quiet, and in the dark, do not need to eat often, and are semi-torpid. To make the difference more plain, imagine pigs and calves hung up by the legs secreting lard and tallow, as is the nature of bees when secreting wax!

The Scripture quotations about the oldest hive (no patent!) and the "sweat of the brow," we leave to be explained by some of the numerous ministers, who are so wicked as to try to "coin money" from the culture of bees, in these degenerate days.

I will give you a little account of what a novice has been doing in the bee-keeping, with my failures, for it has been a failure on every hand. In the winter of 1871 I started in with nine colonies of black bees in the Buckeye hive. In the spring

I came out with one, all told. Then I purchased one of Dr. Bohrer, an Italian. It gave me two swarms, and I could have taken fifty pounds of surplus honey from them. I Italianized the one I had left, which gave me four. The winter of 1872 they all went up; some of them left forty pounds of honey in the hive. The next spring I got two black colonies and started in again; had two natural swarms. They went into winter quarters in a sawdust house, where it never froze, and all died but one. I got two swarms from that. I now have five at this writing, and they appear to be all right. I guess my failure has been bad management on my part a good deal; but bought wit is the best if we don't pay too dear for it, and I hope to profit in the future by the past. The motto is, "If at first you don't succeed, try, try again;" and I think from the information I will get out of the JOURNAL this year—from one who has no patent hive to sell—I will be able to make a better report this fall.

Do you prefer a one-story hive for surplus honey or a two-story?

Where the frames run clear across the hive how deep would you make them—the same as the bottom ones, or would you make them shallower?

WM. A. GOURLEY.

Huntington, Indiana.

We have had better results from a one-story hive containing a double number of frames than from any two-story hive that we have ever used. We make hives that will hold 15, 18 and 20 frames a foot square, side by side, thus giving the same space that would be contained in two hives one over the other.

If we used one hive above the other, we would use a frame the same depth in the upper as in the lower one, so that they could be moved from one to the other.

In hives where all the frames are used side by side, it is better to have a division board, so that part can be used, or all, as required. In the spring the bees do better with less space, and in winter it is better to have fewer frames in the hive.

The JOURNAL is received, with your book entitled, "Bees and Their Management," which I consider a model of simplicity and practicality, containing much information in small space.

In transferring combs from a tall box hive to long, shallow frames, will it do to turn the comb over edgeways, so that the part which was the top will become one end? GEO. O. TOMPKINS.

Westchester county, N. Y.

It will not do to put the combs on

the side, in the manner proposed. The bees will not use them. They must be "right side up with care."

Bees doing well; no dysentery; lost none to date; will commence rye meal in ten days.

W. P. M.

Rickland Station, Sumner Co., Tenn.

This question created considerable excitement, some time since, among the bee-keeping fraternity. Some say (particularly one) that they could not even be provoked to sting. Now, here is my experience:

Some time last summer I had come off a second swarm. I captured the queen; I took hold of her about midway with my left thumb and fore-finger, with her head towards my hand. I then walked to the house, and adjusted my spectacles. I then proceeded—as she was curved up—to straighten her with my right fore-finger; this received a sting. I kept gradually removing it until the sting was withdrawn from the queen's body. The queen spoken of was a black queen.

We have been stung twice by queens, when holding them in our hand and accidentally pressing them, but in neither case did the queen remain in the hand. We would be glad to know what effect the loss of the sting has on the queen. Did she die? If she lived, was she healthy? We cannot conceive of her living long after the removal of the sting.

#### WANTED.

Nos. 4, 7, 9, 12, 13, 14, 15, of Vol. 3, and No. of Vol. 4 of NATIONAL BEE JOURNAL. Any one sending either of these to our office will confer a favor and be paid liberally.

Office NATIONAL BEE JOURNAL.

THE February number was delayed one week on account of the purchase of a \$4,000 press in the office where it is published, the setting of which necessarily made great confusion. We shall be "on time" hereafter. We are glad "Novice" finds no other fault with us than tardy publication, for we greatly value his good opinion.

Gleanings for March received promptly, and, as usual, has much that is profitable and interesting.



## Miscellany.

### BEEES AS ARCHITECTS AND MATHEMATICIANS.

Man is obliged to use all sorts of engines for measurement—angles, rules, plumb-lines—to produce his buildings and to guide his hand; the bee executes her work immediately from her mind, without instruments or tools of any kind. "She has successfully solved a problem in higher mathematics, which the discovery of the differential calculus, a century and half ago, does not enable us to solve without the greatest difficulty." The inclination of the planes of the cell is always just so that, if the surfaces on which she works are unequal, still the axis running through it is in the true direction, and the junction of the two axes forms the angle of 60 degrees as accurately as if there were none.

The manner in which she adapts her work to the requirements of the moment and the place is marvelous. In order to test their ingenuity, Huber glazed the interior of a hive, with the exception of certain bits of wood fastened on the sides. The bees cannot make their work adhere to glass, and they began to build horizontally from side to side; he interposed other plates of glass in different directions, and they curved their combs in the strangest shapes, in order to make them reach the wooden supports. He says this proceeding denoted more than an instinct, as glass was not a substance against which bees could be warned by nature, and that they changed the direction of the work before reaching the glass, at the distance precisely suitable for making the necessary turns, enlarging the cells on the outer side greatly, and on the inner side diminishing them proportionately. As the different insects were working on the different sides, there must have been some means of communicating the proportion to be observed; while

the bottom being common to both sets of cells, the difficulty of thus regularly varying their dimensions must have been great indeed.—*Scientific American*.

### A WORD FOR THE BEES.

While the farmers of our county are enthusiastically uniting in granges for the furtherance of their own interests, to discuss and devise the most profitable and lucrative ways and means of farming; to unite in a common brotherhood to overcome an extortionate rate of transportation, and to do away with at least a part of the profits of middlemen, they are overlooking many profitable sources of income. Many farmers are willing to accept, in its most literal sense, the decree, that "man shall gain his bread by the sweat of his brow;" and to toil early and late, plowing, sowing, and reaping, and every dollar they get is too truly dug out of the earth; and farmers' wives, like their worthy husbands, contribute their mite to the hard-earned dollars, in the form of butter, eggs, and poultry, which have been gathered with many weary hours' work, and not a few genuine aches, all of which is perhaps necessary, and often pleasant. But where the *dollars* are the one object in view, and not the extreme *pleasure* of so much hard work, would it not be well to be sure that we save all the dollars, that our labors may sooner cease, and we enroll our names in the "take life easy" list? And, pertinent to this query, I would ask what becomes of all the honey secreted in our acres of orchards, and hundreds of flower gardens, and wild flowers without number—our swamps full of luscious golden-rod and wild asters—and our great basswood blossoms; every one of whose million of cups contain at least a spoonful of nectar fit for the gods to sup. Thousands of pounds of this luxury is distilled in our county every year, and with a little care and attention from our farmers and their wives would be stored by industrious



servants, who work without pay, and never strike for higher wages or complain of over eight hours a day, who do not leave because they can't have holidays in haying time, or want to go to the circus when the mistress is sick and the fields full of reapers. All they ask is clean little houses, with plenty of room, all by themselves. They are rather exclusive, and they will store many a dollar's worth of limpid, amber-hued honey while the master is doing the labor which he cannot get others to do without all the profits, and possibly not for that. Why is so little attention paid to such a profitable source of revenue? Simply, I think, because we do not realize how very large the profits from a very small outlay. We nearly all realize that we must learn the most simple and profitable way to treat our stock, and our agricultural papers, with their weekly wealth of knowledge, are carefully preserved to gather new hints for future guidance. But not one in five hundred thinks there is anything about a honey-bee but what they know; of course they do,—they know it's all *luck* anyway.

They nail together five boards, cross a couple of sticks inside, and set it out, 3, 5, or a dozen, close together on a bench,—all look alike as two peas, and if the bees can tell them apart it is more than the owner can do; then if they make a few pounds of honey, so that the owner can smoke them out in the fall, and have the sweet, it is good luck. If they are disgusted, and go to the woods, or lose their queen and die, it's bad luck, and that is all there is of it. Others, more wise, will put a cap on the box, and if the bees fill that with honey, besides providing enough for themselves in the body of the so-called hive, they probably save their own lives, and the owner is accounted very lucky. If the farmers would invest twenty-five per cent. less in pork, and invest that twenty five per cent. in carefully reading up the peculiari-

ties and habits of the industrious little insects, in two years time their bee revenue would excel the pork revenue by 100 per cent. For all the extra 75 per cent. start of the pork. The most successful student in beeology in our country is Mrs. Ellen S. Tupper, of Des Moines, Iowa. And realizing how much the people need information upon one of the most profitable branches of country produce, she is publishing a journal which every student of bee interest would do well to take. And if any one doubts the profitableness of bee culture, let him ask those who have followed it as an extensive business. Adam German, of Wisconsin, certifies that the profits of his apiary the last five years are \$22,000. Has any farmer in Hillsdale county done half so well? Yet there is no reason why honey cannot be stored as well in Michigan as in Wisconsin. The only question is to know how, and that Mrs. Tupper promises to tell us, and I trust before long that, while our friends are picking up the threads of profit and loss, the honey interest will not be forgotten, and that the thousands of pounds that nature secretes in our flowers will be secured by the industrious little servants, who work for nothing and board themselves.—*Mrs. M. A. B.*

AN IMPRISONED QUEEN.—Last spring I called the school boys into my apiary, to show them how two stocks may be united, and, when they have movable combs, how they can readily be examined. When opening a medium strong stock, I discovered, in the rear, a cluster of angry bees; naturally I desired to know what that procedure meant, and at once freed the imprisoned queen. She was already somewhat lamed, but was soon able to manage herself, and visit with pleasure her comrades that were resting on my hand, and after awhile was accepted by the bees in quite a friendly manner. This stock had not been opened, and yet the bees had drowned their



queen, and had condemned her to death. This accident shows that the queens are in danger, even if the hive remains unopened, and may be murdered when she is thoughtless enough to go out of her brood chamber, where the bees have lost their scent, and thus are more ready to take her for a stranger.—*Ex.*

WE copy the following from an exchange, and hope those sending money will read it. Since our last issue, a man has been arrested who confesses to having robbed the mails for eighteen months past, and many of his thefts were of letters on their way to newspaper offices containing money. The fee for registering, or for postal order, is very small, and we hope no one sending money to us will risk money "loose in the mails":

#### THREE SAFE WAYS OF SENDING MONEY.

With all the facilities afforded the people for transmitting money with absolute safety, people will persist in sending money in the shape of greenbacks in letters.

Now, with all the chances to which a letter in the ordinary mail is exposed, it is inconceivable that a man would risk the loss of his money in that way, when there are three practically safe and secure ways of remitting it.

1. By a bank draft, which, if stolen, is of no use to the thief, who will seldom run the additional risk of a forgery and being identified. Such draft, however, can only be obtained in towns where a bank is established.

2. By a money order. This is absolutely safe, the government being responsible for the money. A money order, however, can only be obtained at money-order offices, but their number is now so great that most small remittances can be made in this way.

3. By registered letter: This is also a perfectly safe method of sending money or valuables through the mails.

This idea we would like to impress upon every man, woman, and child in the community, "Never send money in a letter in the ordinary way." It is not safe, and if money is lost, there is no redress for the sender:

Either buy a draft at the bank, or a money order at the post-office, or have your letter containing money registered.

MR. N. C. MITCHELL authorizes us to say that all who consider him indebted to them may address him as per advertisement in this JOURNAL;

and that all his old orders will have the preference over any new ones sent. This is a fair promise. Now, let those who receive queens or bees from him in payment of old debts report it as fully as they have his delinquencies.

We will cheerfully give place to such reports. We make this statement because Mr Mitchell was the first publisher of this JOURNAL, and complaints come to us sometimes, as if we were responsible. We have never had *any business relations* with Mr. Mitchell,—never even sold him a queen, or bought one from him,—so, cannot vouch for him, or bring complaints against him. We hope he will now give satisfaction.

WE have received a lengthy report of the Bee Keepers' Convention, at Utica, N. Y., which we are unable to publish for want of space. We will endeavor to make room for a portion of the report in our next number.

WE most heartily recommend the remedy for catarrh advertised in our columns by the Hakeye Medicine Co. We have seen its good effects when used upon a member of our own family. It is no ordinary quack medicine, but the preparation of a scientific physician, who confers a benefit upon the afflicted by giving it to the public in this manner.

#### NATIONAL BEE JOURNAL.

NO OTHER branch of industry can be named in which there need be so little loss on the material employed, or which so completely derives its profits from the vast and exhaustless domains of nature as bee culture.

#### BUSINESS NOTICES.

Having sold out our entire interest in the NATIONAL BEE JOURNAL to Mrs. E. S. Tupper, who will fill out our subscribers' time, and left the books in the hands of W. A. Schofield to settle up all dues to the JOURNAL, all those indebted to said JOURNAL Company will please remit to W. A. Schofield, Brandon's Block, Nos. 8 and 9, in care, Temple C. Harrison, corner Washington & Delaware streets, Indianapolis, Ind.



# NATIONAL BEE JOURNAL

## ADVERTISERS' DEPARTMENT.

### ADVERTISING RATES.

SPACE.	1 Month.....	2 Months...	3 Months...	6 Months...	1 Year.....
1 Page.....	\$16 00	\$30 00	\$45 00	\$80 00	\$150 00
3/4 Page.....	12 00	20 00	30 00	55 00	100 00
1 Column.....	10 00	18 00	25 00	45 00	85 00
3/4 Column.....	8 00	15 00	20 00	40 00	70 00
1/2 Column.....	7 00	12 00	17 00	25 00	40 00
1/3 Column.....	6 00	10 00	15 00	20 00	30 00
1/4 Column.....	3 00	5 00	7 00	10 00	20 00
1 1/2 inch.....	2 50	4 00	6 00	9 00	15 00
1 inch.....	2 00	3 00	5 00	8 00	12 00

Fourth page of cover, double rates. Third page of cover, 50 per cent. added to rates.

Cards of five lines or less, one-half inch, and one copy of BEE JOURNAL, eight dollars per annum; without JOURNAL, \$6.00. For each additional line, until one inch space is reached, \$1.50 per annum will be charged. No advertisements continued longer than ordered.

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 communications to

ELLEN S. TUPPER.

Publisher.

## EARLY ITALIAN QUEEN BEES

We can furnish any number of Pure Italian Queens or Nuclei, or full colonies in April and May. Send for price list.

Address N. C. MITCHELL, Columbia Tenn.; after May 1, address Indianapolis Ind., or Cincinnati, Ohio.

## VERBENAS

Strong, healthy plants now ready for sending out, being a select list of 75 distinct colors grown as a specialty, are free from rust or disease; packed and guaranteed to reach their destination free from frost at all seasons. Price per set of 75 sorts \$3.50; per 100, \$4; per 1000, \$40.

Also, greenhouse, hothouse, bedding and hardy herbaceous plants, flowering shrubs, vines, etc., at lowest market rates.

Send for Wholesale Trade list. We make no charge for boxes or packing.

Address JOSEPH W. VESTAL, Cambridge City, Indiana.

## "The BEST is the CHEAPEST!"

Eggs from White Leghorns—Smith & Pitkin stock—\$2.00 per 13; Light Brahmas, \$2 per 13; Dark Brahmas, \$3 per 13; Brahmas from Todd, Herstin & Williams' strains. Pure Italian Queens \$1 each; tested Queens \$3 each.

J. A. BUCHANAN, Wintersville, Jefferson Co., Ohio.

[2-3t

## Linden Grove Apiary!



Since the Italian Bee has gained such a world-wide reputation and Beeology is becoming so generally understood, a great demand has arisen for Italian bees, hives, and apiarian supplies.

I propose to furnish the above stock, &c., at the following prices—

One Colony of Pure Italian Bees, .	\$15.00
8 Colonies " " " "	\$100.00
1 Pure golden-colored Italian Queen	\$4.00
2 " " " "	\$7.00
6 " " " "	\$18.00
10 " " " "	\$27.20
A neat Honey Extractor . . . . .	\$1.00

Alsike Clover seed, 40 cts. per pound.  
Neat Honey Extractor gratis to every purchaser of Queens at above rates.

I am agent for the NATIONAL BEE JOURNAL, which will be sent for \$1.75, also Mrs. Tupper's "Bees and Their Management."

Any other journal will be sent on application at publisher's price, with "Bees and Their Management" sent as a present.

Address A. N. DRAPER, Upper Alton, Ill. 2tf

## ITALIAN BEES!

Full colonies, with extra nice queens. Also tested, warranted, and *not* warranted queens, bred from imported stock for sale throughout the season. Queens sent by mail. From 20 to 25 full stocks in Jersey county, in fine condition, will be sold extra low if taken before April 15th. Eggs from pure Brahma fowls at \$2 per doz.; after July 1st, \$1.50 per doz. Address T. G. MCGAW, Lock Box 64. Monmouth, Warren Co., Ill, 3-4t.]

## ILLUSTRATED JOURNAL

A brilliant and attractive Monthly, beautifully illustrated and elegantly printed. Will contain 50 full-page engravings during the year. A magnificent CHROMO to every subscriber.

\$2.50 per year. Send 25 cents for Sample Copy, Prospectus, and Premium List, or 50 cents for Sample Copy, Chromo, &c.

Canvassers wanted everywhere.

Address, THOMAS G. NEWMAN, Room 27, Tribune Building, Chicago.

## WAX FLOWERS.

Any one desirous of learning the above art will be carefully instructed by letter how to make and arrange them in Crosses, Wreaths, Bouquets, Vases, and Harps, both white and colored flowers, by sending Fifty Cents. I can furnish sheeted colors, if desired. Address, Mrs. Sarah J. W. Axtell, Roseville, Warren County, Illinois.



# New Verbenas!

My annual set of New Verbenas, 36 in number, all distinct colors, including several new styles selected with care from over 20,000 choice seedlings for their distinct brilliant colors, strong, robust, healthy growth, and free blooming habits; they will equal any new collection in America; they are strong, young, healthy plants now ready for sending out, enabling my patrons, by ordering early, to propagate a supply for their early spring sales of new plants. We pack and guarantee them to reach their destination free from frost at all seasons. No charge for boxes or packing.

Price, 30 cents each; \$2 per dozen; per set of 36 sorts, \$3. Address JOS. W. VESTAL, Cambridge City, Indiana.



## FOTTLER'S Early DRUMHEAD!

Farmers and Gardeners, you all need this Cabbage for two reasons: 1st, because it is the earliest of all the drumhead varieties; 2d, because every plant on an acre will make a large and solid head. Seed of my own growing sent post paid by me for 15 cts. per package; 75 cts. per oz.; \$8 per lb. My seed catalogue free to all applicants.

2-11] JAS. J. H. GREGORY, Marblehead, Mass.

## "Fanciers' Journal and Poultry Exchange."

A weekly journal, with the above title, containing 16 pages of reading matter, is published at No. 39 North Ninth Street, Philadelphia, Pa., and is devoted to the scientific breeding and management of Fowls, Pigeons, Birds, Dogs, Rabbits, etc. As its name indicates, it takes a wide range in the field of fancy, and is illustrated, when occasion requires, by the best known artists. The best writers of the day contribute to its columns, and no pains are spared in order to produce a first-class journal, a necessity to every fancier whose own interest will prompt him to at once see the advantage of a weekly over a monthly for advertising Fancy or Pet stock of all kinds. I have placed the price of advertising within the reach of all (10 cents per line, set solid; if displayed, 15 cents per line; about ten words make a line). The low charge will enable any fancier to advertise even a single bird, and describe minutely either what he has for sale, or what he desires to find, without too great cost. An advertisement in a weekly will, in many cases, sell the stock offered before it would reach the public through a monthly. Subscription, \$2.50 per annum; 10 cents per single copy.

JOSEPH M. WADE, 39 North Ninth street, Philadelphia.



### KEOKUK & DES MOINES RAILWAY.

No. 124.		TIME TABLE.		1874
GOING WEST.	TAKING EFFECT	GOING EAST.		
Leave.	DECEMBER 1st.	Arrive.		
No. 3.	No. 1.	No. 2.	No. 4.	
6:00 p. m.	7:15 a m	Keokuk,	4:15 p m	4:25 a m
8:00 "	8:57 "	Farmington, 2:32 "	"	2:28 "
8:25 "	9:16 "	Bonaparte, 2:12 "	"	2:06 "
8:40 "	9:28 "	Bentonsport, 2:00 "	"	1:53 "
9:07 "	9:52 "	Summit,	1:35 p. m	1:25 "
10:15 "	10:52 "	Eldon,	12:40 "	12:15 "
11:00 "	11:30 a.m.	Ottumwa,	12:00 "	11:30 a m
12:30 a. m.	12:35 p.m.	Eddyville,	10:53 "	10:18 "
12:35 "	12:40 "	Transfer	10:48 "	10:13 "
1:03 "	1:00 "	Oskaloosa,	10:25 "	9:45 "
2:00 "	1:45 "	Pella,	9:38 "	8:50 "
2:52 "	2:25 "	Monroe,	8:58 "	8:02 "
3:27 "	2:52 "	Prairie City, 8:30 "	"	7:30 "
4:20 "	3:30 "	Altoona,	7:47 "	6:40 "
5:00 "	4:00 "	Des Moines, 7:15 p. m.	6:00 "	6:00 "
8:00 "	4:10 "	lv D Moines at 6:45 "	5:15 "	5:15 "
10:45 "	6:35 "	Perry,	4:50 "	2:20 "
12:00 "	7:45 "	Gr'd Junc.	4:00 "	1:00 a.m.
	10:15 "	Ft. D., l've,	"	10:30 a.m.

CONNECTIONS.—At KEOKUK with the Toledo, Wabash and Western Railroad, Toledo, Peoria & Warsaw Railroad, Chicago, Burlington and Quincy & Mississippi Valley & Western Railroads.

At FARMINGTON with the Burlington and Southwestern Railroad. At ASHLAND with the Chicago, Rock Island and Pacific Railroad. (Southwestern Division.) At OTTUMWA with the Burlington and Missouri River Railroad and St. Louis, Kansas City and Northern Railroad. At EDDYVILLE Transfer with the Central Railroad of Iowa. At DES MOINES and Altoona with the Chicago, Rock Island and Pacific Railroad. At GRAND JUNCTION with the Chicago and Northwestern Railroad. At FORT DODGE with the Illinois Central Railroad.

Fare as low as the lowest. Sleeping cars on all night trains. JOHN G. VENSUP, Gen'l Ticket Ag't.

### CHOICE FOWLS FOR SALE.

A few trios of Houdans, from stock imported from Garden of Acclimation, in Paris, at \$15 per trio.

Also, young, well-grown, perfectly marked Cocks, at \$5 each, partridge. Cochin Partridge Cocks, \$6 each. Trios of these birds at \$15.

A few pairs of Red Game Bantams, \$10 per pair. Address M. A. & M. F. TUPPER, Cottage Grove, Des Moines, Iowa.

BINGHAM'S Brahmans and Buff Cochins are bred from the best strains, and can't be beat by any. Send for circular and a

SUBSCRIPTION for this paper (reduced rates to single subscribers on all publications). Send for prices offered by my subscription

AGENCY. Poultry Breeders' Directory with any regular paper in the country, sent at less than their regular rates. H. S. BINGHAM, 12 tf Sparta, Wis.

I HAVE on hand for the spring market a limited number of reserved Queens, bred from select mothers. Price, \$5. Tested Queens in May and June, \$5; where the purchaser risks purity of fertilization, \$2.50; "Novice" or I. A. Root Queens, \$1. A. SALISBURY, Camargo, Douglas Co., Ill.



St. Louis, Kansas City,

AND

**SAINT PAUL!**

THROUGH Short LINE

The Central Railroad of Iowa!

Crossing the Chicago, Rock Island and Pacific Railway at

**GRINNELL!**

Connecting with the St. Louis, Kansas City & Northern R'y at

**OTTUMWA!**

And the Milwaukee & St. Paul Railway at

**MASON CITY!**

Offers a route to the localities named

Unequaled by Any Other!

**PULLMAN SLEEPING CARS**

Accompany Night Trains,

Run Through to St. Lou's Without Change.

Only one change between

**GRINNELL AND ST. PAUL!**

Through Tickets on Sale at All C., R. I. & P. Coupon Offices.

D. N. PICKERING,  
Gen'l Supt

A. RUSSELL,  
G. P. & T. Agt.

**MARSHALLTOWN, IOWA.**

**SEED FOR GRANGES!**

I offer seed to my fellow Grangers at a liberal discount. Special rates sent to all Granges that apply through their Secretaries.

JAS. J. H. GREGORY, Marblehead, Mass.

**WANTED!**

Every farmer and bee-keeper in the land to send ten cents for our pamphlet on rape culture.—forage. The best paying grain crop and best bee KRUSCHKE BROS., Berlin, Wisconsin.

3-2t]

TO SOUTHERN BEE KEEPERS.

**PURE ITALIAN BEES!**

I will sell a few colonies of Bees, in good movable comb hives, and warrant them *Pure, Strong, and Healthy*. Price, \$25 per colony, with transportation charges paid, if sold near me.

Address, "Virginia," care of Italian Bee Company, Des Moines, Iowa.

**FROM**

The Apiaries of **Chas. Dadant,**

**THE WELL KNOWN IMPORTER.**

Stocks of pure Italian Bees and Italian Queens

Write for Price list to **CHAS. DADANT,**

Hamilton, Hancock Co., Ill.

**AMERICAN  
BEE JOURNAL**

Every Keeper of Bees should subscribe for the **oldest and best scientific and practical Journal of Apiculture in the World.** The most successful and experienced Apianians in America

and Europe contribute to its pages. \$2 a year. **Send a Stamp for a Sample Copy.**

Address, **THOMAS G. NEWMAN,**  
Room 27, Tribune Building, Chicago.

**MUNCIE APIARY.**—Italian Bees and Queens of the highest grade of purity. Queens, \$3.50 each. Full stocks in Langstroth hives, \$15 each. Ten stocks, \$12 each. Purity and safe arrival guaranteed. P. F. DAVIS, Muncie, Delaware Co., Ind.

**WESTERN FARM JOURNAL**

Steam Printing House,

313 & 315 COURT AVENUE,

**DES MOINES, : : : IOWA,**

Is provided with Steam Power Presses, and a complete assortment of Type, Rules, Borders, &c Orders for News, Book and Job Work are solicited.

An Engraving Establishment has been added, and we are prepared to execute orders for Animal Portraits, Cuts of Machinery, Buildings, etc, and for their insertion in our paper on advantageous terms.

This journal has the largest circulation of any paper west of Chicago and north of St. Louis and advertisers find it the best medium within their reach.

**ADVERTISING RATES:**

Outside page 30 cents per line, nonpareil type each insertion.

Inside pages 25 cents per line, nonpareil type, each insertion.

Business notices 40 cents per line, nonpareil type, each insertion.

Special rates by the year and to large advertisers.

All transient advertising must be paid in advance.

Seven words on an average makes a line, twelve lines to an inch. Where display is wanted allowance must be made for the extra space required.

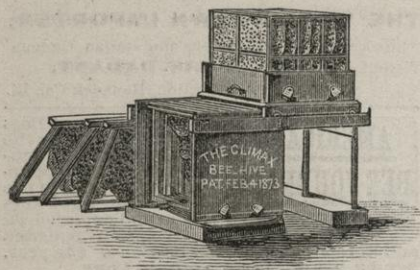
All cuts must be cast of solid metal.

To insure prompt insertion advertisements must reach us by Monday prior to the date of publication.

**Subscription Price, : : \$2.00 a Year,  
\$1.00 for Six Months.**



## The Climax Bee-Hive.



The leading features of this hive are :

1. Its upright form, which economizes the heat generated by the bees.

2. It is made in two parts. The upper part, which contains the boxes (or frames), is provided with common trunk rollers, and rests on cleats, secured to the lower part of the hive. These cleats extend far enough beyond the hive to allow the upper part to roll off from the lower without crushing, disturbing or in any way interfering with the labor of the bees. The strips forming the track, have drop-legs at their outer ends, and are hinged just outside the body of the hive (Fig. 1); and when not in use, fold up snugly against the hive (Fig. 2). Send for Circular.

Apply to

**A. J. KING & CO.,**

No. 53 Webster avenue,

Jersey City Heights,

New Jersey.

## HONEY! HONEY!!

We will buy honey of all those in the country who have no home market. We can sell 10,000 pounds in this place. We will sell on commission or pay cash at wholesale price, 15 cents per 100 pounds extracted honey, or 20 cents for honey in the comb. Those having honey, to dispose of will find it to their advantage to correspond with

ITALIAN BEE CO.,

11tf

Des Moines, Iowa.

**SEEDS OF HONEY PLANT.**—Large packets of the following varieties of choice and valuable honey plants sent by mail at 25 cents per packet: *Cleome integrifolia*, *Lophanturus anisatus*, *Sálvia trichostemoides*, Golden-rod and aster. Address H. A. TERRY, Crescent City, Ia

## "LIVE AND LET LIVE."

### The Best--Leffel's Central Opening Movable Comb Bee-Hive.

"Live and Let Live" is my motto in selling territory, which is now offered at extremely low prices. Will take good western lands in exchange. Address, COL. JOSEPH LEFFEL, 123m Springfield, Ohio.

**FOR SALE OR EXCHANGE.**—Farm lands, improved and unimproved, in the following States: Indiana, Illinois, Iowa, Missouri, Tennessee, and Virginia. Also, for sale or trade, city property. W. A. SCHOFIELD, 8 and 9 Brandon block, southwest corner Washington and Delaware streets, Indianapolis, Ind.

## A. BENEDICT,

Importer and Breeder of pure

## ITALIAN BEES!

Completely isolated from other Bees, on

Kelly's Island, in Lake Erie,

Twelve miles from main land.

### FULL COLONIES FOR SALE.

**My Book** "THE HONEY BEE:" a New Work, just out, describing the habits and culture of the Honey Bee; 128 pages; Price Fifty cents. **Send for a Copy.**

I also breed

### THE AMERICAN WILD TURKEY,

And grades mixed with the large Bronze Variety for breeding purposes.

For further particulars address, with stamp,

**AARON BENEDICT,**

Bennington, Morrow Co., O.

## THE BEST

## NORTH AND SOUTH LINE

### In Iowa.

## BURLINGTON, CEDAR RAPIDS & MINNESOTA R'Y.

### 2 PASSENGER TRAINS EACH WAY DAILY,

Except Sunday.

Connecting with trains of the

### Chicago, Rock Island & Pacific Railway,

At WEST LIBERTY

Going North at 11:38 A. M. and at 11:28 P. M.

Going South at 7:45 A. M. and at 9:10 P. M.

Making the best route

### From DES MOINES

To BURLINGTON and the SOUTH,

CEDAR RAPIDS, WATERLOO,

AUSTIN, ST. PAUL,

And all parts of

NORTHERN IOWA AND MINNESOTA.

Miller Couplers and Westinghouse Air Brakes on all passenger trains.

Sleeping Cars on all night trains. Tickets, time cards, and all information given by agents of the C., R. I. & P. R'y.

W. W. WALKER,

WM. GREENE.

Gen. Supt.

Gen. Manager.

C. J. IVES, Gen. Pass. and Ticket Agent,

2]

Cedar Rapids, Iowa.

## NO BEE HIVE FIXTURE!!

**AN ENTERPRISING TIN-SMITH OR** Dealer in Hardware can hear of a paying business by addressing "F." care of National Bee Journal, Des Moines, Iowa.

# BEES! BEES!

Choice Colonies Only \$25

Strong Nucleus Colonies, \$15.



We have a few choice colonies of bees for sale, prepared for shipping as early as the weather will permit. Price in nice

## Movable Comb Hives,

such as we prefer, only \$25. In cheaper and smaller hives, \$20. Strong nucleus hives, containing each a queen reared from imported mother, \$15, if sent before May. After that time, \$12. Address, ITALIAN BEE CO., Des Moines, Iowa.

## Every Bee Keeper

Should subscribe for the

# AMERICAN BEE JOURNAL,

Established in 1861 by the late Samuel Wagner,

It is acknowledged to be the best scientific and practical Journal of Apiculture in the world. It is unconnected with the ownership of any patent rights relating to Bee culture, and therefore admits into its columns the fullest and freest discussion of the merits and demerits of the various systems from time to time presented to Apirians.

It has for contributors to its columns the best most experienced and most successful Apirians in this country, and from time to time will furnish interesting articles from the various Bee periodicals of other countries. Its aim is to

## Develop Bee Culture in this Country,

and hence it will not be the advocate of any one theory or system of Bee culture.

The BEE JOURNAL is published monthly, by The American Publishing Co., at Chicago, and is edited by the experienced apiculturist, W. F. CLARKE, Esq., President of the North American Bee Keeper's Society, at \$2 a Year, in advance. Specimen copies sent free on application.

**CLUR RATES**—We will club the AMERICAE BEE JOURNAL with the ILLUSTRATED JOURNAL (the best and cheapest magazine of Art in the world) for \$3.50; or these two journals, with the "Young Folks' Rural" and its two superb chromos, entitled "Morning on the Mississippi" and "Sunset on the Sierras," for \$4, making the most liberal terms ever offered for three deservedly popular and valuable publications, retailing at \$6. Or, The Bee Journal and Rural with Chromos for \$2.50.

Specimen copies of these three periodicals, with the Chromos, sent for 60 cents, on application. Communications and remittances should be addressed, THOMAS G. NEWMAN, Room 27, Tribune Building, Chicago. 1-3t

**FOR SALE.**—Italian Bees and Queens, and the Queen Bee-hive and Honey Extractor. For terms, address W. A. SCHOFIELD, Nos. 8 and 9 Brandon Block, southwest corner Washington and Delaware streets, Indianapolis, Ind.

**REV. A. SALISBURY,** Breeder of Pure Italian Queen Bees. For particulars and price list address Carmago, Ill.

**QUEEN BEE-HIVE.**—For hives and rights in this justly celebrated hive in the State of Pennsylvania, apply to A. J. Hoover, who deals in Pure Italian Bees and Queens, and all kinds of apiarian supplies. Also, agent for the NATIONAL BEE JOURNAL. Send for circular and price list for 1874. Address A. J. HOOVER, Plymouth, Luzerne Co., Pa.

# ITALIAN QUEEN BEES



Imported and homebred from imported mothers. PURE as the PUREST, and CHEAP as the CHEAPEST. Queens a specialty. Send for my Circular and Price List. Address

**T. N. HOLLETT,**  
Pennsville, O.

2-1y]

## CENTRAL KENTUCKY

# Apiary & Poultry Yard

Purely tested Italian Queens and full colonies at reasonable prices for 1874. Also, Bronze Turkeys and six leading varieties of pure breed Poultry a specialty. Satisfaction guaranteed. Circulars free. But for further or special information please enclose a three-cent stamp.

Address, **R. M. Argo,** Lowell, Garrard County, Kentucky. [2-tf

# Canada Victor Tomato.

I invite the attention of the public to extracts from more than a score of letters in my Catalogue for 1874, from farmers and gardeners in various States, who raised this new tomato for the first time last season. These letters are all emphatic in their praises of the Canada Victor Tomato: 1st, for its surpassing earliness; 2d, for its excellent quality, and 3d, for its uniform solidity. I now offer to the public Seed saved from selected specimens only, at 15 cents per package and \$1.50 per ounce. My Seed Catalogue free to all applicants. 2-2t] **JAS. J. H. GREGORY,** Marblehead, Mass.

## DISSOLUTION AND REMOVAL.

The firm of **BALDWIN BROS.** is dissolved by mutual consent, the same to date from Nov. 1st, 1873.

L. W. BALDWIN,  
A. A. BALDWIN,  
P. BALDWIN,

The subscriber, having removed to Missouri, will continue to breed choice Italian Bees and Queens from the best stock that can be procured. Purity and safe arrival guaranteed. No circulars. Prices—Single tested queens, \$3; two for \$5. Six or more, \$2 each. Address

L. W. BALDWIN,  
17t Wellsville, Montgomery Co., Mo.

**XLNT CHANCE** FOR WESTERN PURCHASERS OF BEES.—I will sell a few colonies of black and hybrid Bees in very simple movable comb hives, at low prices. Safe arrival warranted. Address "**C. H.**" care of National Bee Journal, Des Moines, Iowa.



**ATKINSON'S OCTANGULAR  
HONEY EXTRACTOR!**



PATENT

PENDING.

**Necessity the Mother of Invention.**

Having in my travels experienced great inconvenience to procure castings and other materials suitable for Extractors, I have invented something new and cheap, that any man can make, doing the work as easily and efficiently as any in the market. Single Extractor, \$8.

*County and State Rights for Sale.*

For Northern States, apply to  
A. J. POPE, Indianapolis, Ind.  
For Southern States, apply to  
THOS. ATKINSON, Live Oak, Fla.  
nov1f

**NEW HOMES  
IN  
NEBRASKA !**

Those designing to seek new homes in this young and beautiful State can obtain information as to the resources and advantages of the finest section of it—

**THE BIG BLUE VALLEY**

by subscribing for the **Beatrice Express**, a weekly newspaper published in Gage County.

**TERMS**—\$2 a Year, in advance; \$1 for Six Months; Specimen Copies, five cents.

Address **COLEMAN & BROWN**,  
2-tf.] Beatrice, Nebraska.

**BEES! BEES!**

For sale in Langstroth hives. Warranted pure Italians; to be delivered early in spring. **Prices low.** Address C. F. care of National Bee Journal, Des Moines, Iowa. [2-3t

**For Sale or Exchange.**

**IMPROVED and UNIMPROVED  
FARM LANDS**

In Indiana,  
Illinois,  
Missouri,  
Iowa, and  
Tennessee.

Also for sale or trade,

**City Property.**

W. A. SCHOFIELD,  
Indianapolis, Ind.

**THE HOOSIER**

**Fly Catcher !**

No other invention has secured so much comfort and cleanliness to the household as

**The Hoosier Fly Catcher !**

It is simple, so that a child can manage it.  
It is cheap, so that all can enjoy it.  
It is ornamental, so that it offends no one.  
It is certain, so that all have confidence in it.  
It is durable, so that it needs replacing seldom.  
It is effective, so that flies are exterminated.  
It is cleanly, so that the neatest rejoice in it.  
It is perfect, so that all are satisfied with it.  
No house is completely furnished without the Hoosier Fly Catcher. The Hoosier Fly Catcher is its own best advertiser.

**IT SELLS ITSELF !**

Buy early before the supply is exhausted and be ready to receive the flies when they begin to swarm.

**CAUTION**—The Hoosier is the only patented Fly Catcher which can be used without danger of prosecution for infringement. As the owner of the patent is determined to maintain her rights in every instance and at any cost, all persons will do well to heed this timely and friendly caution.

State Rights for sale on favorable terms.  
Manufactured by **E. R. FARNAM, South Bend, Ind.** 2

**FRESH EGGS**

For hatching, from first-class premium fowls.

*Per Dozen of 13.*

Partridge Cochins.....\$ : 0	Dark Brahma.....\$3 00
Buff Cochins..... 3 00	Light Brahma..... 3 00
White Leghorn..... 2 50	Houdan ..... 2 00

Address **E. J. WORST**,  
12 tf New Pittsburg, Wayne Co., O.

**Buckwheat.**

We offer for sale a choice lot of Seed Buckwheat, raised in Virginia, by the bushel, peck or in four-pound packages through the mail. Address **Italian Bee Co., Des Moines, Iowa.**





## Early Queens!

Sent in large boxes, with a pint or more of bees, at \$10 each. We have a few of these put away especially for those who desire them sent very early, before black drones appear. Sent after May 1st, \$8. These queens sent with a small colony of bees, from which two nuclei can be formed at once, \$15. Address

ITALIAN BEE CO.,  
Des Moines, Iowa.

1 tf

## Schofield, Harrison & Co's

ADDITION TO INDIANAPOLIS.

232 First-Class Building Lots!!

This is a sub-division of that portion of the Sutherland place east of the Indianapolis, Peru and Chicago Railroad. It adjoins the Bruce property, now in process of sub-division into a magnificent addition. It lies on the line of the I. P. & C. R. R., four squares northwest of the car-walks, and five northeast of the State Fair and Indiana Industrial and Exposition Grounds. These lots are free of incumbrance, and are first-class in every respect for residence and business purposes. They are on the market at fair prices and on easy payments. For further particulars call on Temple C. Harrison, rooms 8 and 9, Brandon block; David B. Schofield, at his residence in Sangster, Harrison & Co's addition.

W. A. S. HOFIELD,

os. 8 and 9 Brandon Block, southwest corner of Washington and Delaware street, Indianapolis; Ind.

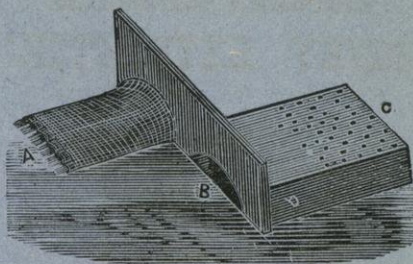


My business is to supply what every farmer of experience is most anxious to get, perfectly reliable Vegetable and Flower Seed. With this object in view, besides importing many varieties from reliable growers in France, England and Germany, I grow a hundred and fifty kinds of vegetable seed on my four seed farms, right under my own eye. Around all of these I throw the protection of the three warrants of my Catalogue. Of new vegetables I make a specialty, having been the first to introduce the Hubbard and Marblehead Squashes, the Marblehead Cabbages and a score of others. My Catalogue, containing numerous fine engravings, taken from photographs, sent free to all applicants. JAS. J. H. GREGORY, Marblehead, Mass  
feb 6-13 20 mch 6-20

## MOCKING, European Song, and TROPICAL BIRDS

Address E. HARRISON, Springfield, Ohio.  
2-tf

## Found at Last!



THE GREAT DESIDERATUM!

## NON-SWARMING ATTACHM'NT

For

## BEE HIVES!

IT IS ADMIRABLE INVENTION is what every bee-keeper should have. It is perfect in its workings and can be attached to any hive.

Patented Dec. 26, 1871, by **MRS. H. A. FAR-NAM**, South Bend, Indiana.

Send for Descriptive Circular. [2]

**BEES AND SUPPLIES WILL BE FURNISHED BY M. QUINBY, St. Johnsville, N. Y. Send for Price List.**

## NEW BEE SMOKER!

I have devised a new Smoker, or method to drive smoke among bees. No breath required. Any material can be used. Bees can be quieted more effectually, sooner, and kept quiet better than in any other way. A little bellows is held and worked with one hand, and smoke directed to the exact point where it is wanted, in quantities to suit the operator, while the other hand is at liberty for any other purpose. No person would willingly dispense with it after using it.

Price, \$1.50.

[2-tf]



HAWKEYE

## Catarrh Remedy!

A Certain Cure if Faithfully Used.

Box of medicine with instrument and full directions sent to any address, postpaid, on receipt of \$1. Address HAWKEYE MEDICINE CO., Des Moines, Iowa. 1231

**FOR SALE**—One nice second-hand Wilcox & Gibbs Sewing Machine, in perfect order. New sewing machines of Wilcox & Gibbs patent at manufacturers' prices. Address ELLEN S. TUPPER, Des Moines, Iowa.

**For INFORMATION** Concerning Hives Extractors, Bees, Queens, Bee Books, etc., enclose postage stamp to **Italian Bee Company**, Des Moines, Iowa.



# Queen City Apiary.

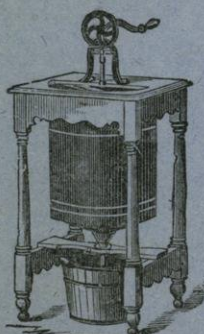
Get the Latest! Get the Best! **GET THE LAST!**

Seventeen First Premiums Awarded Over  
All Competitors to the Patent Improved

GEARED ROTARY

## HONEY EXTRACTOR!

FOR 1874.



No. 1



No. 2.

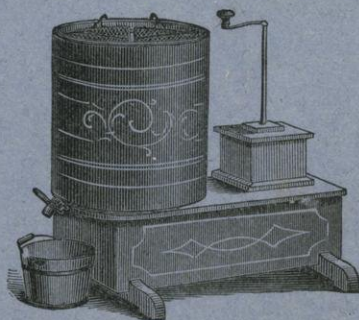
Manufactured under Letters Patent, granted January 7, 1873.

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.

### 500 Now in Use!

And the best of satisfaction is given.

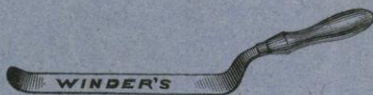
Our New Honey Extractor No. 3.



## The QUEEN CITY.

(Patent applied for).

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

### NEW HONEY KNIFE!

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

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

Address all orders to **J. W. WINDER & CO.**, Importers and Breeders of Pure Bees from the Best Imported Queens, **132 Fourth St., CINCINNATI, OHIO.**