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April, 1874

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Vol. V.

No. 4.

# NATIONAL

# BEE JOURNAL



A MONTHLY MAGAZINE,  
DEVOTED EXCLUSIVELY TO BEE CULTURE.

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

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## APRIL, 1874.

DES MOINES, IOWA:  
HOMESTEAD AND WESTERN FARM JOURNAL PRINT,  
313 AND 315 COURT AVENUE.

# NATIONAL BEE JOURNAL.

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# NATIONAL BEE JOURNAL

DEVOTED EXCLUSIVELY TO BEE CULTURE.

VOL. V.

APRIL, 1874.

No. IV.



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.

## HIVES AND THEIR HISTORY. FROM ENGLAND.

[We are sure our readers will be glad to see a history of hives from an English standpoint. We have other valuable and practical articles from the same pen which will appear in future numbers.—Ed.]

Bees have been studied, and their produce made available for the benefit of the human race, from time immemorial. The earliest record we have of the place they used for storing their honey is in Deuteronomy xxxii: 13: "And he made him to suck honey out of the rock." These holes or caves in rocks were the ordinary hives used by bees at that time, but the next account we have where bees stored honey is the most remarkable hive ever used by bees, and it is recorded in Judges 14: 8: "And, behold, *there was* a swarm of bees and honey in the carcass of the lion." We must not represent to ourselves such a clean insect as the bee taking possession of a corrupt and putrid carcass in which to store its honey, for it is stated that "after a time," (Samson had slain the lion) he returned and saw the bees and honey in the lion's carcass. It is well

known that in those countries, at certain seasons of the year, the heat will, in the course of twenty-four hours, so completely dry up the moisture of the dead camels, and that, without undergoing decomposition, their bodies will long remain like mummies, unaltered and entirely free from offensive odor, and so form a good hive for a swarm of bees; and, also, there were the ribs of the lion for the bees to build their combs upon; and I have no doubt they built their combs straight, although they were not waxed, as Samson so easily "took thereof in his hands, and went on eating." The ribs of this lion is the first account we have of a bee-hive.

It is said that Melissus, king of Crete, was the first who invented and taught the use of bee-hives. But there was little progress made by any of the following writers on them, viz: Thomas Hyll, 1574; Dr. Charles Butler, 1609—the father of English apiarists, who was the first to describe the storifying system; Samuel Purchas, 1657; John Geddie, 1675, who had a patent granted to him for his hive in that year by King Charles II.—the only patent ever taken out in England for a bee-hive. What a contrast this is to America, where they have 101 patent bee-hives!

Moses Rusden, in 1679, improved Geddie's hive, and put a frame in it for the bees to fasten combs upon. This is the first account we have of a frame being put inside a bee-hive.

In 1712 Maraldi, a mathematician of

Nice, first invented a glass hive, in which the indoor proceedings of the bees could be seen, and his description of the manners, genius, and labors of the bees, which were published in the *Memoirs of the Royal Academy of Sciences* in 1712, gave a wonderful stimulus to the study of bees. Maraldi was succeeded by Buffon and Reamer in 1728; Swammerdam, 1738; Kœnig, 1739; Rev. John Thorley, 1744; Bonnett, 1745; Gelieu, 1746; Rev. Stephen White, 1756, who invented the collateral system.

In 1765, the Society for the encouragement of Arts, Manufactures, and Commerce in England offered £400 to encourage bee-keeping. A premium of £5 was given to every person who had in his possession, on February 1, 1766, being his own property, any number of stocks of living bees, in hives or boxes, not less than thirty; and also a premium of £5 to every person who shall take ten pounds of merchantable wax from any number of stocks of living beei, in hives or boxes, who shall preserve their lives till the 1st of March, 1767.

This gave such a great impulse to bee-keeping that I have a list, with the names of the authors, of no less than 42 works written on bees during the next six years, among which was the celebrated Thomas Wildman, 1768, who performed numbers of wonderful feats with bees that have never been equaled in any country up to the present time. For instance he appeared before King George III., standing upright on horseback, with a swarm of bees suspended in garlands from his chin, like a great beard, and after transferring them from his chin and breast to his hand, stretched out at full length, on firing a pistol, the bees all swarmed in the air and went back to their hive, with numbers of other equally wonderful performances, that were, at that time, considered feats of legerdemain or witchcraft; but the secret of Wildman's skillful manipu-

lation is well understood now. It consisted in a careful holding and disposal of the queen, together with confidence in the general inoffensive disposition of bees.

Dr. Evans thus speaks of Wildman's feats :

Such was the spell which 'round a Wildman's arm

Twined, in dark wreaths, the fascinated swarm;  
Bright o'er his breast the glittering legions led,  
Or with a living garland bound his head.

His dext'rous hand, with firm yet hurtless hold,  
Could seize the chief, known by her scales of gold;

Prune', 'mid the wondering train, her filmy wing,

Or o'er her folds the silken fether fling.

We pass by all the numerous writers, each trying to improve the bee-hive, until we come to John Keys, 1780, when he greatly improved the bee-hive, making the back end all of glass, and putting bars in, on which the bees built their combs. Three boxes, all the same size, formed a set, and were used on the storifying system. My father was a disciple of Keys, and improved his make of boxes, and I have now got a stock of Ligurian bees in one of those boxes that he got made in 1806, and it is as sound and good as the day it was made. Dr. Edward Bevan, in 1827, improved Keys's hive by making each bar separate, so that any comb could be taken out without disturbing any of the others.

In 1790 Abbe Della Rocca gave an illustration of movable bars with wings or pieces on the ends, for keeping the bars at proper distances from one another. Francois Huber, of Geneva, Switzerland, was the first inventor of a bar-frame hive, about 1796; but his frames were one inch thick, and formed the top, back, and front of the hive, and the frames opened the same as the leaves of a book.

The late Major W. Augusta Munn was the first to put bar-frames inside a box or case, the same as the modern bar-frame hives. He invented his bar-frame hive in 1834, and, after testing it for nine years, he took

out a patent for it in Paris, in 1843. He could not take out a patent for it in England, because, before he applied for a patent, the hive had been described and illustrated in the *Gardener's Chronicle* for 1843, page 317. Maj. Munn described his hive in a pamphlet, in 1844, and in a second edition of it, published in 1851; and in that year exhibited his hives, etc., at the International Exhibition in London.

Prokopovitch, the Russian, described his hive in a pamphlet in 1847, but he then used bar-frames in the supers only. M. DeBeauvoys, in 1847 and 1851, in his work on bee culture, published in Paris, three years after Maj. Munn took out his patent, describes movable frames containing all the features of the frame as invented by Maj. Munn.

Baron Von Berlepsch and the Rev. John Dzierzon invented the German bar-frame hive, a description of which appeared in the supplement to the *Bienen-Zeitung* of May 1, 1852. It was called "*stehender rahmenlifter*," (upright frame ventilator), and the Baron states he made and put bees in a hive with frames instead of bars in June, 1843. In 1850 he put projectors on the end of his bars to keep them the right distance from one another.

The first printed description of a movable comb hive in America was given in the *Scientific American* of March 6, 1847, page 187. The inventor was Jacob Shaw, Esq., residing in Hinckley, Medina Co., Ohio.

Rev. T. L. Langstroth took out his first patent October 5, 1852, and he made such great improvements in the bar-frame hive that it quite revolutionized bee-keeping, and brought it to such great perfection that it has now become of national importance. The 101 patent hives in America, and Tegetmeyer's, Woodbury's, and Carr's improved bar-frame hives in England are all combinations of the celebrated Langstroth bar-frame hive.

WILLIAM CARR.

Newton Heath, near Manchester, England.

## NOTES FROM MISSOURI.

I received the first copy of the *JOURNAL* by last mail, and have carefully read it from beginning to end, and pronounce it a nice and interesting work. Well, I will notice some articles contained therein; will criticise some, indorse some, etc.

The first article, by Chas. Dadant, on the disasters of last winter—while perhaps his theory may be correct in some localities, in others it is not. In this part of the country it is not. In the spring of '71 we had an unusual amount of honey dew—every leaf and blade of grass seemed loaded with it—which lasted several days, of which our bees gathered an abundance, filling up their hives rapidly. This honey dew was destroyed or washed away by a terrible storm of rain and wind, which washed everything perfectly clean, which was the end of the honey dew. After the storm, we had a nice spell of weather—a good season for honey until it got too dry,—during which time we had considerable swarming, the result of which was as follows: Bees that gathered of the honey dew died with dysentery by the thousands, while the swarms that came off after the storm were perfectly healthy and clean, wintering well, with scarcely any loss. The honey-dew honey was apparently good, tho' dark and thin—could distinguish it from the other by taste or sight. This proves to me that it was the honey-dew honey that caused the disease, and not the unevaporated honey, as it was gathered in the spring, and all sealed over, etc. I do not think there was any disease here, only that caused by bad food. And my idea is this:—that the disease is caused by different things in different places. What may be the trouble in one place may be all right in others.

Bee-keepers should not depend too much on what other people write, but should study their own climate, locality, etc. What is good and practica-

ble in Minnesota and Iowa perhaps, would be entirely unnecessary and expensive here in Southwest Missouri.

In regard to bees deserting their hives, I agree with Mr. Nesbit in an article on page 36 of the February number, that the bees get too scarce to govern and carry on the affairs of the hive properly, and, thinking there is probably a chance of uniting themselves to other stronger families, quit their old hive and seek for another. During the summer of '73 it was the case with a great many hives in this part of the country. Several of my neighbors' bees quit their hives and came and united themselves with mine, most invariably going in with the strongest. My remedy in such cases is to unite them with other weak stocks; if necessary, put three together, as one good queen will raise more young in a hive well stocked with bees than five or six will when there is but a few.

I see a great deal said through the journals about wintering bees, some of which is good, and a good deal of which is nonsense, especially in this country, as I have seen bees winter here with the sides of their hives, or rather gums or hollow logs, split from bottom to top, with head or top pried loose so you might run your hand under it anywhere, with snow and wind driving through the entire hive, and do well, scarcely any dying; and never have I known bees to freeze when then there was anything like a colony together, or kept dry, or in a shape to dry out after being wet.

I am like J. W. Montgomery, from California,—it seems foolish to be making quilts, carpets, and going to so much trouble to winter bees, especially in this country. It may be very necessary in some places. As I said before, what is good in one place is entirely unnecessary in another.

*Transferring.* In your article on spring management you say not transfer until the fruit blossoms are out, etc.,

which is not a good time here, or not as good as sooner, from this fact: there is more brood to contend with, and more honey. As you are sometimes compelled to leave out brood, on account of crooked and ugly combs, and the honey being new, runs readily, making it very troublesome. My time for transferring in this country is in February, provided the weather is warm enough, or as soon after as the weather will admit, there being no new honey or brood of consequence to trouble with, putting in the frames all the straight comb, and storing the honey in chamber of the hive, which the bees commence to carry down immediately, and fill their combs below, thereby stimulating the queen, and causing brood-rearing to commence much earlier than if they were not disturbed. I have transferred six or eight hives this month which had no signs of brood, that are now laying rapidly and doing well, while some other hives that are not laying any. So, I think the sooner the better after winter breaks.

W. B. Cheek reports a hybrid laying in December, which is not strange to me, as I have queens, even black ones, that have been laying ever since the first days of December, and I think it would not be uncommon in a great many localities, if it were known.

In regard to G. W. M's question about his bees swarming out, he is answered in Benedict's article in the same number—also in his article, and the best thing he can do with them is to unite them with another hive.

I do not think of anything else of importance in this number of the JOURNAL that I care about noticing. So, I will proceed to tell you something about bee-keeping in this country, and my experience, luck, etc. We are located on the M., K. & T. R. R., twenty miles from the western line of the State. We have a comparatively new country, as we were all burnt out and driven off during the war, all be-

ing "Rebs" or "Rads," both parties having power here at times. We have a beautiful town of 2,000 or 3,000 inhabitants, and every effort is being made to push forward and develop one of the best countries in the world for farming, stock growing, etc. I must say that the little bees are much neglected, or, in other words, cruelly used, being generally kept in boxes, gums, etc., and allowed to sit from one end of the year to another, and be eaten up by worms, killed by brimstone matches, cruelly robbed, etc. But I am trying to get the people to open their eyes and look, and succeed very well, too, as a great many are buying good hives, and say they will kill no more bees, etc. Right here I will say that if you will send me several copies of the next number of the JOURNAL I will distribute them among my neighbors and acquaintances, which will be quite a treat for them, as there is very little reading matter on the subject of bee-keeping to be had here.

Well, it is hardly worth while to say that we had an unusually bad summer last, for bees, many dying on account of drouth, cold, backward spring, dysentery in winter, etc.; but, after all this trouble coming on in one year, still bees attended to right were profitable. I know one hive of hybrids that swarmed three times, and did well. I made from one hive of Italians purchased from you in July, 1872, eight hives, but got no honey, but did get some honey from stocks that were not divided; tried to divide my black bees, but could not make it go, as they would starve invariably, or leave the hive. Not knowing why they did not do well when divided, I kept trying until I came very near killing a good many good colonies, being anxious to increase my number of stocks.

And here let me say to all—never try to divide a stock of bees unless you know they are too numerous in the hive, and are fixing to divide themselves. As I remarked before, one

good strong stock is worth three or four weak ones to gather honey or raise bees. I think artificial swarming is good if not practiced too soon, when it is a curse.

Artificial swarming may be done in many ways. I prefer to take one strong hive and divide the stores and bees equally, and move the one containing the old queen about eight or 10 feet from old stand, on which I leave the new one, which will cause the queenless stock to get the most bees, which is balanced by the old stock having a laying queen.

Italian bees are very scarce in this part of Missouri. I purchased the first queen ever brought to this county from you in July, 1872, and during the first summer following I increased— notwithstanding it was the honey panic—to eight stocks, by a very little assistance from the blacks. I could not increase the blacks at all, which proves the superiority of the Italian over the blacks in this country.

*Hives.*—As yet there are not a great many different hives in use here. Langstroth's, H. A. King's, the Diamond, the Climax, and Common Sense bee-hive, invented and manufactured by your humble servant, I believe are about all that have made their appearance as yet, all of which are good enough if the keeper will attend to his business. There has been a good deal done through this western country by humbug men selling moth-proof hives (all of which are humbugs) that has caused people to think the same of good hives.

*Extractor.*—I want to say a word or two about the honey extractor that is blown up by most everybody. As for my part, I shall let it alone for the present, as comb honey is worth from ten to fifteen cents more than the other any way, and I am satisfied that there is nothing gained by its use. For instance, take two hives; take out one frame, and extract the honey. Take from the other and cut the



comb out and replace them, and one will refill as soon as the other. This I have tried successfully. The facts about the matter are these: When bees are well fed there is no scarcity of material for building comb, and the young bees that are not old enough to carry honey are the ones that mostly work at this business; also, all hands at night make comb, and cap over honey.

Bees will not consume any more food when building comb than they will when they are idle, as they eat all they want anyway. This matter of consuming so much honey to make a little comb is all "bosh."

I would like to ask for information (for I never) who ever saw—no matter how good the honey season—a hive full of comb—that was not full of honey? This is proof (for I take it for granted that it is so) that the comb-builders of a good stock are always ahead of the out door workers. I do not blame men for selling their inventions, though I am satisfied that the extractor is of no benefit. My opinion may change, but the honey seasons will have to change first.

I will close my communication, as I have said now too much, and could say twice as much more. You can publish this if you like, or throw it under the table with other refuse matter, as I have said, in my manner, just what I think, and what I have proved by experience.

GEO. H. MOBLEY.

Nevada, Mo., March 11, 1874.

#### NOTES FROM MICHIGAN.

A few years ago I commenced bee-keeping, and found that when frost killed the flowers the bees quit breeding and commenced again the last of December. I have examined my bees the last of December or first of January, for three years past, and always found brood. I thought it was generally understood that the queen commenced laying by the 1st of January.

So many speak about their bees not rearing brood till February, that I am afraid it is part guess work. However, I don't believe in disturbing bees in winter. I have been very careful in examining them only on warm days.

Last fall I used the extractor, and got my bees very strong by it; divided part of them in September, and have wintered all. They are as strong as they were last fall, and have had brood in their hives every month.

R. S. BECKTELL.

New Buffalo, Mich.

#### NOTES FROM KENTUCKY.

November 18th, I put into the cellar 16 colonies black bees in Langstroth hives. They had been flying briskly for two days. On that day thermometer in the cellar stood at 48°. During the winter it varied from 41° to 51°, four-fifths of the time standing at 46°. In January I discovered mice in the bee cellar, and succeeded in trapping them all in about ten days. March 2d and 3d set the 16 colonies out. The mice had entered three hives that were rather weak, and destroyed the two outside combs in each. In these hives the bees had spotted the combs and frames with their fecal discharges. The mice had not apparently damaged the bees. The other colonies came out in good order, with clean combs. No mold and very few dead bees. Part were ventilated at top by removing honey board and closing entrance; the rest had a small entrance, about an inch, and the hole in honey board nearest to entrance uncovered. There was no perceptible difference in the two methods, in the appearance of bees. All the colonies had, when taken out, more or less of brood, larvæ, and eggs. These 16 colonies were not disturbed in any manner by me during the winter. I was, at first fearful that noise made in the room above would disturb them; but, upon going into the cellar, I could not hear any objection made by the bees

to loud knocking and pounding on the floor above.

I also had four small colonies that were given me by a neighbor in Oct. They were put into three frame nucleus hives, and fed sugar syrup, but had no pollen. Three of them were set out to fly in December, and again January 20th. They were taken out of winter quarters March 2d, in good condition but weak in numbers. I began to feed them sugar syrup and flour, but one deserted the hive and left for unknown parts during my absence. There was but little syrup in the combs,—not above half a pound,—no pollen, and about a dozen unhatched eggs. The other three have begun breeding, and appear to be prospering.

In this neighborhood bees have wintered very well. Some few have starved to death during the winter, and a few have deserted their hives since, leaving, in most cases, a little brood.

GEX.

March, 1874.

In the winter of 1871 I left my bees on their summer stands, and nearly lost them all. In the winter of 1872 I put them in my cellar, and nearly lost all from molding, and those that survived were of no profit to their owner. The winter of 1873, just closed, I have had better success, and now describe, the best I can, the process:

About the middle of November, 1873, I took a box large enough to admit the stand of bees, and left about 12 inches space all around. In the bottom of this box I put about one foot of oats straw, and took the bottom board off my bee-hive, as they were in box hives, and set it in the box on top of the straw; took off honey box; left the holes in top open; spread a piece of blanket over said holes, and then packed straw all around close, and nailed up the box for winter. Now, I opened said boxes and hives March 4, 5, and 6, 1874, and am happy to say that my bees are apparently in as good

condition as the day I stowed them away; and I do believe that they will not average two dozen dead bees to the hive.

I had a Langstroth hive containing Italian bees. I did not take the bottom off, but packed it in other respects as the other, and had more dead bees in it than in all the others combined.

About two years previous I cut the queen's wings, and have examined her several times since, and also last fall, when I packed them away. She then had no wings and no brood in any stage or cell, as the honey season in this part was cut short, and, consequently, breeding stopped. Now, when I opened the Italian hive, lo, and behold! a queen with perfect wings and about two dozen drones, some matured and flying, and others not yet sealed over; but no signs or traces of worker brood in any form. Query: Did my old queen get new wings, and why does she lay drone eggs—or did she die—or have they raised a young queen—and are her instincts, though sealed up in darkness, such as to raise drones so early so as to become fertilized in time to raise workers?

I am at a loss to know how all this is. An answer through your valuable journal will confer a favor on one who thinks he can keep bees with safety through winter, and probably be the means of profit to others.

J. G. KIDD.

Louisville, Ky.

The bees have undoubtedly reared a young queen to replace the old one, and she is not fertilized. Unfertilized queens lay drone eggs, and no others. —[EDITOR.

#### NOTES FROM LOUISIANA.

MRS. TUPPER:—In a previous communication I promised to give an explanation of the anomalous bee-hive described by the illustrious Samson. Since writing to you I have seen two

articles in the journals giving an entirely satisfactory explanation; but, as it is only hearsay, it may not be amiss to testify to what we have seen nearer home.

When I was moving from Mississippi to this part of Louisiana, three years ago, I was surprised at what I saw. Cattle and horses lying dead on the prairies, near dwelling houses, was a strange sight, indeed. I had heard of cattle drying up on the plains, in certain regions, but I could not realize it, or know it to be true.

We live here on the beautiful river Vermillion, near the sea shore, and on the extreme southern border of the extensive Attakapas prairie country, where we have considerable forests of various kinds of Southern timber. A cow was known to die not far from our dwelling, during winter, and the following summer the hide was found to be in a perfect state of preservation. An ox died in the horse-lot, 75 yards from the dwelling, and, knowing the salubrity and antiseptic property of the atmosphere, it was, carelessly, not removed. The inmates of the house were never the least annoyed by the carcass, although there was one who was extremely sensitive to such things. This carcass became perfectly dry, with the ribs and hide forming as complete a shelter for bees as is often found in hollow trees. The ox was poor, and, as part of the flesh was devoured by dogs and buzzards, it was perfectly possible for bees to have found an agreeable and safe lodging place.

Our bees here appear to be very prolific, and if some of you up there could furnish the Italians, I could repay in early queens, far in advance of your seasons. Bees have been working here all winter. I have two stocks of Italians, and know of no more within fifty miles of me.

We live down here among the snakes and alligators, and did not have a case of fever in my family last year, which was a sickly year. Ten in the family.

Less danger of being bitten by snakes than in any other part of the South where I have lived, and I have lived in several States. Boys swim in the river with alligators every summer. The country is not boggy, as the prairie soil farther east, and a beautiful green turf covers the whole country, when not subjected to the plow.

Our tax-gatherers have taken much of our lands, and our people are much impoverished; but if you want young alligators or eggs, we can supply them at wholesale or retail!

We have fine orange sites, free from overflows of the Mississippi or other streams, and fine range for cattle besides; fine soil for the production of grasses and clover. The latter affords fine bee pasturage now.

J. B. RAMSEY, M. D.

Abbeville, La., March 4, 1874.

#### A MUTE BEE-KEEPER.

DEAR ELLEN S. TUPPER:—I send my words to you that I wish to know what. Please to tell me how much will you sell one of your best full-blood or purest Italian bee-hives to me, or sell one best Italian queen to me. I know about H. A. King and M. Quinby. Mr. King still talk with me. I am deaf and dumb boy, but my mother keep me and her hotel, but I keep my bee-hives. My father was dead, but I have three sisters live. I learned some lessons of bee-keepers since last April. I bought a Italian bee-hive for \$18 out of 25 last April. I bought a queen from W. W. Crary, of Mass., last Sept. I bought another Italian bee hives \$10 last Monday. I wish to buy one best one from you. I often read about you. Five or fifteen bees fell down dead every day in my cellar. How will I cure? My bee-hives are very pretty, and painted two or three times. But I am against the black or old honey in any old hives. The hives are as same as M. Quinby's hives. I have 17 bee-hives only now, but I have 43 ones three years ago. I suspected that the winter was all cold to

prevent them eat the honey. If every one warm day or night of every one or two week of the the bees can gather the honey. They could not be killed. Or I think that the old honey can kill my bees, but the new honey could not kill them. Can you send one Italian bee-hive to me, or send one queen if after I will pay you? How can you send? I will talk with you often. I send my best respects to you. Please to tell me.

WM. BEST BURGET.

Breakabeen, Schoharie Co., N. Y.

### JOTTINGS AROUND IOWA.

MRS. TUPPER:—Since my last letter written to you, which appeared in the February number of the JOURNAL, I have visited most parts of Putnam, Mercer, and Grundy Counties, Mo., on official business, and I never forget to make every possible inquiry about bees. I find some men's bees, where they have had any care and attention given them during the past winter, in fair condition; others, where no care has been given, on the point of starvation. The common price of bees in Missouri is from \$5 to \$6 for black bees in common box hives or gums.

In our own County of Wayne, common black bees are about in the same condition as in Missouri. Mr. Houge has lost three stands since January from starvation. He uses Langstroth hives; considered here a careful man. Mr. C. Jackson, from same cause, lost two stands. Mr. J. Beal, four stands; same cause. Mr. Minor, four stands; Mr. J. Hays, six stands; Mr. C. Snyder, three stands—same cause as above—in Starbuck and American hives. All of the above parties have observed signs of moth. Out southwest of Corydon some 15 miles, Mr. Edmunson has lost eleven stands; no cause assigned. Mr. Hutchinson lost two stands; Mr. Morris, four; Samuel Jones, five—no cause assigned. Mr. J. Hutchinson, of Decatur County, has 65 stands; no honey from them last season. He is feeding his bees.

Mr. John Logan has 47 stands. He received no surplus honey last season. He is also feeding. No signs of dysentery in either apiary. Out about Garden Grove, I learn from reliable men, some 15 or 20 farmers have lost from two to five stands each. I have also learned from reliable parties of considerable loss of bees in Appanoose County—mostly black bees—from starvation.

Thus far my own bees are all healthy, with considerable brood at this time. I am feeding honey, syrup, and rye meal, all they will consume. Next month I shall add to the feed already mentioned boiled eggs mixed with boiled rice, which they partake of freely in the absence of natural pollen. I have purchased several stands of bees within the last ten days, at \$5 per stand, and one late swarm for \$3, in common log gum, with the most beautiful comb I ever saw in common bee hive; entirely destitute of honey. I brought them home, 15 miles, gave them a box of honey weighing 6½ pounds, and they consumed the whole in less than three days' time. I should judge there were 1½ gallons of nice large bees almost starved when I bought them.

I think I have discovered a remedy to keep moth away from hives, and, after experimenting some more this spring to prove such to be the case, I shall make the same known through your popular BEE JOURNAL.

CAPT. W. W. WRIGHT.

Wayne Co., Iowa, March 5, 1874.

### SALT—TEMPERATURE—EGGS DRONES.

I notice various writers, among them "P," on page 47, claim that bees should have salt; yet not one of them that I remember of tells in what way to give it to the bees,—whether in its solid form, or in a liquid state.

My asparagus bed is near my apiary. In the spring I strew salt on it. My bees have access to it, yet they do not

pay the least attention to it. It may be that there is a "salt lick" in this vicinity from which my bees obtain their supply. During a dry time, I place shallow vessels near my apiary, in which I place cobs, and fill with water; also, putting in salt to prevent the cobs from becoming sour. The cobs are generally covered with bees, but after the water, as I suppose, and not after the salt. If salt is one of the essentials for bees, I want mine to have it, and would like to know the best way to give it to them. Mine will not take it in its crude state.

On page 40 the printer makes me say, 30° to 40°; it should be, 34° to 40°. What I should have said is, that for seven winters I have kept the temperature of my cellar from 34° to 40°, and this winter the temperature has been 42°. I think under 34° too cold, and over 42° too warm. The right temperature, if one could have it, would be from 36° to 38°. If it gets over 42°, the bees become restless; if under 34°, they begin to eat honey, and exercise to get up more heat. Any one can test this by lowering the temperature to the freezing point: he will hear the bees humming all through the cellar; raise the temperature, and all becomes quiet. Let it get too warm, and it is the same; lower the temperature, and all becomes quiet.

On page 36, "Bees Deserting Their Hives," I think Friend Nesbit has given the true reason. I never had a full colony at in that way; but I have frequently, when taking a queen from a full colony and putting her into a nucleus, had them invariably desert—would continue to do so after clipping the queen's wing. The queen is certainly dissatisfied. I have clipped the wings of a great many queens; never saw that it injured in fertility, or caused them to be superseded.

Friend Goodlander, on page 31, gives a "puzzle." He wants to know "why a queen will raise three-banded workers part or all of the first season, and then after that raise blacks, or else hy-

brids?" I have never known a queen to act in that way. His answer may possibly be correct. He can test it in this way: Raise a black queen—the nurser to be Italian—but mate her with a black drone. Then let us know how many bands her workers will show. If his theory is correct, the workers will not all be black—some will show Italian blood.

Page 33. My experience with drones from a virgin queen is that they are as long lived as other drones, and that they are perfect males.

T. G. MCGAW.

Monmouth, Ill., March 12, 1874.

#### CONDITION OF BEES, COMB-GUIDES, ETC.

MRS. E. S. TUPPER:—You ask bee-keepers in different parts of the country to report the condition of bees in their respective localities, and, as I have taken some pains to inform myself in regard to their present condition in this locality, I would say they have come through thus far in fine condition; have heard of no disease, all appearing healthy and in good order.

I find very few losses. I have lost one out of fifty put into winter quarters, and that from lack of brood. I think they have consumed considerable honey, the winter has been so open, and bee-keepers in this section almost invariably winter on their summer stands. There is yet, however, plenty of time for them to die; for March and April draw heavily on their stores, and, unless feeding is resorted to, many may yet perish before they can gather honey from the fields:

I see a writer in one of the bee journals, in speaking of feeding to stimulate breeding early, says that one oz. to each hive every other day is sufficient. Do you think that quantity sufficient? If so, the expense is not much compared to the probable benefits to be derived from having them

strong in numbers at the commencement of the season.

I think I will try what virtue there is in feeding with at least a part of mine, and will report the result.

#### COMB GUIDES.

I notice in several of the bee journals many inquiries from bee-keepers as to the best method of inducing the bees to build straight combs. Every one knows the annoyance of having crooked and uneven combs.

Last fall I visited Friend Salesbury, of Camargo, and he explained to me his mode of making comb guides, which I think is far ahead of the bungling wooden affair. It is made by molding a small ridge of beeswax on the bottom of the top bar of the frame; and he tells me that it was an unfailing remedy against crooked combs, without tilting the hives or any other device. If I can make myself understood, I will describe the way he does it, for you must know that Bro. Salesbury is not one of those kind of men we too often meet, who must run off post-haste to the Patent Office the moment he sees something that may be of profit to his brother bee keepers; consequently, it is free to all:

Take a piece of board  $\frac{3}{4}$  inch thick, about two inches broad, and as long as the top bar of your frame; bevel off one edge so as to leave the narrowest side about  $\frac{1}{4}$  inch narrower than the other—that is, if the board is 2 inches wide, the narrow side will be  $1\frac{3}{4}$ . We will call this piece No. 1. Take another strip the same length and may be one inch by  $\frac{3}{4}$ —not material. This call No. 2.

Now, take one of your top bars and place it on the narrow side of No. 1, and in such a position that the beveled edge will come in the center of the bar. Then take No 2 and place it on the narrow side of No. 1, and snug against the edge of the top bar, and fasten it there.

A strip of tin or zinc should be tacked on the beveled edge, and a little oil

or grease be rubbed on it to keep the wax from sticking, and it is ready for use.

Now, all you have to do is to place the mold just in the position above described, tipping the bar to the proper position,—a little practice will tell about that,—and having your wax hot in a small dish with a spout. Pour a small stream upon the end and against the metal edge, letting it run to the other end, and leaving a small narrow ridge of wax which may be trimmed even with a knife if thought best, although it is not necessary. The same can be done with the side bars, and thus secure straight combs every time.

I have occupied considerable space in this description, but I could not do otherwise, and I don't know but it may seem rather dark now to some; but I hope all can understand it.

J. G. THOMPSON.

Urbana, Ill., March 7, 1874.

MRS. TUPPER:—Will it not be better for "H. M. R.," who writes on page 30, February number, to "be sure he is right" before he "goes ahead"? "Novice" has made plenty of mistakes, and he has had enough failures that can be taken up by those who have a disposition to find fault with him, without accusing him of things of which he is not guilty. I certainly never said anything about the honey of the fall of '72 being thick and black and of poor quality; for we do not have fall honey in Medina county, and we have *never* had any *poor* honey, so far as I know. The honey that killed our bees—as I suppose—was of fine color, sealed over, and excellent in taste. Still a NOVICE.

WE will send our JOURNAL and Novice's *Gleanings* for one year at \$2.25, and are sure no subscriber will be willing to do without the record of Novice's experience when it can be procured at so small an expense. This notice was accidentally omitted in March number, but we will send back numbers.

# Editorial Department



Mrs. ELLEN S. TUPPER, Editor.

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APRIL,

DES MOINES, IOWA.

1874.

### CARE OF BEES IN SPRING.

IN spring and early summer, the instinct of the bees prompts them to rear brood. Later, the same instinct urges them to store honey for their winter use. It is our policy to take advantage of these impulses. Though honey may be very abundant in the season of fruit-blooming, they do not store much of it; the more abundant it is, the faster they rear brood, and it is not uncommon to open hives wherein not a day's supply of honey for the colony is found, but most of the cells filled with brood in all stages, from the egg to the developed bees, emerging from the cell. It is for us to foster this brood-rearing, in order that the hives may be full of workers to gather the honey which is abundant in June and July.

There should be no guess-work about the quantity of honey on hand in the hive. The consumption now is very great, and, in most cases, the amount of brood reared is in proportion to the stores they have on hand. Neither must the bee-keeper feel that "because there is plenty of bloom in the woods," the bees are sure to have honey. During much of the early bloom the state of the weather is such that no honey is secreted. We have found colonies of bees actually starving when the woods were white with plum and thorn bloom.

No directions for feeding can be given, but actual observation and judgment must decide for each colony. Feed just enough to induce the bees to increase steadily in brood.

The quilts must be carefully tucked about, and all the heat of the hive kept in. Those who are fortunate enough to have empty comb will now supply it as fast as the bees will occupy. Strong colonies will sometimes make comb now if the hive is kept warm.

Preparations may now be made for rearing queens to supply new colonies, as they are made in May. The best queens you have are the ones to be supplied with drone comb. The easiest way for the novice to rear surplus queens is to take by the last of the month a good prolific queen from a strong colony, and put it in one that has not as good a queen. (Poor ones may be found in all apiaries of any size). The one left queenless will build a number of queen cells. These may be given, one by one, as they mature, to new colonies.

We have given some directions for making swarms in this number, because so many of our subscribers live where the last of April and 1st of May is the swarming time.

### SWARMING.

IN writing of bees it seems still to be considered necessary to give directions for swarming. Even those who do not allow bees to swarm in the natural way devote pages of their writing on this subject to methods of gathering the departing legions, preparation of hives, and putting the bees into them. To us this seems as inconsistent as it would be to direct the farmer how to use old-fashioned plows, sickles, and

hoes for the care of his crops, instead of informing him that such implements are out of date, and the saving of time in the use of modern tools will more than compensate for the cost of them. We have, for more than ten years, dispensed entirely with natural swarming—increasing our bees by division of colonies, as we deemed best, at the proper season.

The results have been such as to convince us that in no other way can bees be kept with such uniform success. Natural swarming is at least very uncertain; no rules can be given by which we can judge when it will take place. The owner may watch the hives for days, expecting swarms, and none appear; while, during an hour's absence from home, out come the bees, and perhaps decamp. Some seasons they refuse to swarm at all, and others they swarm so much as to injure themselves, and prevent all hopes of surplus honey. The time in which swarms come is of the utmost importance to the prosperity of the old and new colonies. The old doggerel,—

"A swarm of bees in May is worth a load of hay;  
A swarm of bees in June is worth a silver spoon;  
A swarm of bees in July's not worth a single fly,"  
has far more truth than poetry.

We find that by artificial swarming we obtain earlier swarms, prevent all loss of bees by absconding, and are able to keep all our colonies strong, so as to secure some surplus honey, however poor the season, and this method is for us a great saving of labor. The incessant watching necessary during two months, where a large apiary is allowed to swarm at will, would be impossible for us. By our plan, all divisions are made about the same time, and it is easy to give all the necessary care. We would, at any time, rather make an artificial swarm than have a natural one.

It is sometimes urged that "bees probably know best when the right time for them to swarm has come;" "their instincts are the safest guide."

This, though plausible, is not true. We have known bees to make all preparation for swarming, build queen-cells, rear drones, etc., and then, when a sudden change in the weather occurred, destroy all—involving the necessity of two weeks' more preparation and much loss of time at the best season of the year.

Now, we know that, in the natural order of things, it will be pleasant and warm again in a few days, and can govern ourselves accordingly. We have known a cold rain in June to cause bees to destroy all the drones in an apiary, to the dismay of its owner, the bees evidently thinking summer was over. We do not allow other animals the right to decide for themselves in matters of importance, but set our hens, wean our calves, and break our colts at our pleasure—not theirs!

When bees are in movable comb hives, they can be divided in various ways. Every bee-keeper of experience has methods of his own. We are not writing for those who do not need our aid, but for beginners in this pleasant work.

If you have but one or two colonies in these hives, you may proceed thus, choosing the middle of a fine day as the best, though not the only time to do it: Have ready another hive of the same size and form of your own, side by side with the old one. Open the former, first blowing smoke freely in at the entrance, take out a comb, and look for the queen, who will usually be found on one of the middle frames. Put the comb containing her into the new hive and also another comb well filled with brood and honey. Set this new hive *where the old one stood*, and move that one several yards away. This is all; the new hive has the queen, and the majority of the bees will return to the old spot, and, finding "mother" there, will go to work with a will to replenish it, while the one retaining the main part of the



bees and power to rear another queen will very soon be in as good condition as if no bees had been taken from it.

If you have a number of colonies in hives all alike, you can, by taking one or two frames from each, fill up an empty hive of the same pattern, and then remove one that you have not disturbed to a new place, setting the newly filled one where that stood. Multitudes of bees will come to it, and though perplexed for a time, will, after finding all the necessaries of life in the new domicil, cleave to it and form an excellent colony.

After trying any of these ways of swarming, you will never go back to the old way of allowing bees to do as they please.

A little practice will encourage you to go on and attempt still more. Some facts must be remembered to succeed in the matter.

1. A swarm, when it comes off naturally, does it "advisedly," and the first thing, after taking possession of their new home, every bee "marks the location," so as to fly back to it after an absence. When bees are driven out "summarily," they will not do this, but each bee flies back to the old spot. It is necessary, therefore, to set the new hive in the old spot; enough bees will remember the looks of the old one to serve all practical purposes until the young bees hatch.

2. It is necessary to have an old queen or a young fertile one with the majority of bees in the empty hive; for queenless bees build only drone combs, and the hive would be filled with them, and thus be fit for little except storing honey.

3. Always, if possible, have one or more combs containing brood in the new hive, and the bees will never leave it. They seem to have the attachment for the brood that all animals have for their young, and will not forsake it.

4. Never attempt to divide bees until the colony is strong; the earlier in

the season that they are thus strong, the better, for the early made colonies are the ones that store the surplus honey.

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#### ITALIAN QUEENS IN MAY.

WE are prepared to make a new offer to those working for our JOURNAL. We will send a queen *in May* to every one who sends us five subscribers and \$10 in cash; value of these queens at that season, \$8. We have not, until now, ventured to promise our premium queens *early*; but now that they are safely wintered, we have made arrangements with one of the most experienced queen-breeders in the country to aid us in this. We have 200 choice queens, to be sent out to agents only. *To any one who does not receive his or her queens in May we will refund the money,* and still send the JOURNAL the year to the subscribers sent.

We expect this offer to bring us 1000 new subscribers. We warrant purity and safe arrival of all queens. Those sending first will be supplied first. Those who have already earned queens as premiums will receive them as early as they can be sent with safety.

This month and May are the best to work for the JOURNAL. Make an effort and see how soon you can earn a queen.

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THE time for which a large number of our readers subscribed expires with this number. We hope for prompt renewals before the time of mailing the next number. We offer very liberal premiums to those working for the JOURNAL. To those *old subscribers* who prefer cash commissions for work done we will say, send us three *new subscribers*, with \$6, and we will send you the JOURNAL, free, to the end of '74. We are constantly improving our paper, and, if our friends help us, we shall have the best journal of the kind in the country, with the largest subscription list, by the close of the year.

## NOTES AND Queries

I introduced a queen, during the past season that the bees, from the first, showed a disposition to supersede. After heading them off for about two months, I discovered that she was minus a leg, which led me to cease my efforts to thwart the bees. They soon superseded her. In trying to fix upon a reason for the stubborn determination of the bees to supplant her, I remembered that her brood was generally irregularly spread in the comb. At the time, I did not think that this was the effect of the missing leg, or of the incapacity it inflicted; but, after reading your January JOURNAL, I have wondered if, under a more observing eye, the case might not have suffered an additional fact in answer to the question, "Why does a queen put her head in a cell before laying in it?"

J. S. WOODBURN.

I believe Texas to be the natural home of the honey bee. While your bees in Iowa are in your cellars, dying with some bee disease, ours are out on their summer stands, busy carrying bee bread, and raising an army of workers for the honey season.

The only enemy we have here is the web worm, and, by paying some attention to the bees, and keeping your stands strong, they are easily overcome.

If I can get 15 cents a pound for strained honey, I do not want any better business. Up to this time I have only raised honey for home consumption; but this year I want to put some in the market, and see what it will bring; and, if it sells readily, I shall go into the business largely.

P. LOSEY.

Texas.

My bees were in the cellar 135 days. The average consumption of honey to the hive was 9 and 9-10ths pounds. The hives left on the summer stands, protected with straw, consumed 17 pounds to the hive, and are not in near as good condition as those wintered in the cellar. C. W. GREEN.

Oquawka, Ill.

In February number you say you have never seen but one instance of queens laying in December. I had one hive of Italians left on its summer stand this winter; opened it December 25th, and found brood in the hive, and there has been brood there ever since. The queen was raised in July last, and was very prolific, and the colony is strong in numbers, with stores sufficient to last until fruit trees bloom.

I also had one queen laying November 14th, when I put them in the house. My queens were all laying February 20th, except one in very weak stock, and brood coming out in most of them.

March 1st and 2d, bees flew well and took rye meal freely.

Bees have consumed a great amount of honey this winter, but have wintered well here, except light stocks, which have died from lack of stores.

A. BORD.

Jay Co., Ind.

In the fall of '71, I bought ten colonies of bees for which I paid \$50. I bought them on or near the middle fork of the Mohican river, Richland County, Ohio, about 35 miles from home. I hauled them home in my spring wagon late in the fall, and placed them in my apiary. I soon after discovered that there was something the matter with these bees. (They were black bees). I first saw them crawling out of the hives with their abdomens distended almost to bursting. They would tumble off the alighting board, and seem to be in a hurry to get as far from the hive as possible. I did not see one that made an effort to take wing. The bees deserted and left several of those hives before cold weather set in; others that survived until cold weather fairly set in would crawl out on days when it was too cold for bees to leave the hive; in fact I saw them do this one extremely cold day. This state of things went on until all the ten colonies were dead. All those hives had more or less honey left in them.

Now, if Friend Quinby can tell what ailed or would have cured these bees, I am ready to hear. Nearly all the bees in the section where I got those bees perished that fall and winter. I am satisfied that the hauling had nothing to do with bringing on the disease. I hauled bees from other localities both before and after, the same fall, and they remained perfectly healthy.

AARON BENEDICT.

I see on page 19, January number, Mr. J. W. Sperry, of Humboldt, Iowa, writes to know about his queen. I should think from his description of the case that his eggs did not hatch; if they had, he would have seen larvae. Perhaps the eggs of this queen are somewhat like those of two queens I had some years ago: One laid eggs as regularly as any queen, and as plenty, but none of them ever hatched, and it was several months before I found out the trouble, for I never mistrusted or even thought of non-hatching queen eggs: The other queen I speak of was a worse case. She was what I call a water, or liquid layer, and I examined her and the combs for eggs and larvae for weeks and did not find either, and one day I took her out of the hive and showed her to a bee-keeper. She would lay about so often, but her eggs were without shells; they were not eggs, but a small drop of watery substance or liquid. I could not see but they were as fine queens as any I ever raised, and all the fault I could find with them was, one laid shells and the other laid yolks.

I wish to ask you a question through the JOURNAL, and I shall have to lay the case before you: A pure Italian queen mated a black drone. Her workers were two and three-banded—that is, some

had two bands, and others had three bands, and not one with less than two bands. The queen died, and these workers laid eggs, and in due time several hundred drones came out. Well, you will say, that is nothing new; but here is where the new comes in: all of those drones were black, and looked just like any native black drones, and I ask why should this be—black drones from yellow-banded workers? To be sure, these workers were half breeds, but I can't see why some of these drones should not have shown some faint trace of the Italian colors.

J. BURTIS.

Bees here have been gathering pollen all winter, with the exception of a few days, and some honey. We have not had more than fifteen or twenty days that were too cold for them to be out in the fields or prairie; and now the prairie is blooming with wild flowers of various kinds. Then we now have the wild plums in full bloom and the bees are gathering honey quite fast, and getting ready for swarming. I have transferred one colony to-day from a box, or gum, as it is called, and they had plenty of bees in all stages of maturity, and lots of drones, and had commenced to build queen cells, and undoubtedly would have swarmed in another week or ten days.

\*It has been raining for the past two or three days, but to-day it is bright and clear, with the thermometer about 75°.

There is not much interest taken in bee culture here. All the farmers seem to want is an old box and get as much honey as will do the family. In the fall they brimstone the bees and take the sweets that they have worked so hard for—at least a great many do. I know more than one that killed from two to ten colonies last fall. I have not seen any Italians yet, but I expect to have some soon from my old friend, Atkinson.

A. K. B.

*Corsicana, Navarro Co., Texas.*

I wintered my bees in a bee-house, 10x12 feet in the clear and eight feet high, with four-inch ventilation in center, and with 16-inch walls, filled in with saw dust. Took my bees out March 2d, and found some of the outside combs moldy. Considerable sweat had run out of the hives. How can I remedy this, as I think that is what caused the bees to mold? My bee-house is perfectly dry. I have thirty hives to commence with this spring.

ANDERSON YORK.

*Davis Co., Iowa.*

I have been looking over the February number of the JOURNAL, and find many things of interest in regard to the bee.

I have a few stands which I had in the cellar until to-day, when I moved them out. They flew quite lively, and all have young bees and brood in all stages. The comb was dry and free from mold. It is the first time I ever tried keeping them in a cellar. I fed them a little during the winter every day.

I lost 20 good strong swarms in the winter of '72

and spring of '73; but I account for the loss by the bees having gathered an abundance of peach juice which soured, the caps bursted, and in damp days the honey ran from the hives. My bees took the dysentery and died. The winter was a hard one, and my bees were left in the summer shed, and only protected on the west, and with a roof on the top.

I use the Langstroth hive. When I put my bees into the cellar, I removed the honey-board and one frame on each side of the hive, then I took small comforters, placing one on each side and over the top. I have the Italian bees. They are much better than the black bees.

I see in the JOURNAL that some one has been troubled with the ants, which is more or less the case where the soil is sandy. Now, let me give a sure remedy for the little pests: Get a few grains of strychnine, dissolved in strong vinegar; then mix with molasses, and spread on a board; place the board on the ground under the hive, with the poison side down. The ants will soon find it, and it will be the last of them.

C. B. SURFACE.

*Warren Co., Ohio, March 2.*

There seems to be some interest manifested in regard to a standard frame, and it seems that the Adair, or a frame about that shape would "carry the day." The Adair frame is 10¾ deep, by 13 long. A little variation of that frame makes it a great deal better, all things considered. It should be made like this: 10 deep by 14 inside, or 10½ by 14¾ outside. With this frame we can use lumber 12 inches wide for the hive, which should be 17¾ by 30 inches. For the extractor this frame would be more convenient than one ¾ deeper, as the end of the comb should be placed in the extractor downward. The frame which it revolves in can be made ¾ less. The can should be 17 inches deep, and 17 inches in diameter for comb honey. Also this frame is best, as we can use four small frames five by seven inches, which fit in the large frames.

I would advise all to use frames double width, instead of two story. Then we can add a frame or comb as they need it, and not have to put on an upper story in order to have them work on three or four combs more, when they are not strong enough to protect all the combs in the upper story.

R. S. BECKTELL.

*New Buffalo, Mich.*

We no more expect ever to see a "standard frame," or a standard hive, than we do to see a "standard" religion or "standard" opinions on anything.

People cannot see alike, and the best way is to exchange opinions freely, and then "agree to disagree."

The frame here recommended is a good one, and the ideas expressed by our friend are sound—we think.

I have had a swarm of bees fail this winter in the following manner: A first swarm of bees that issued last summer was put into a double-cased, movable frame hive. They failed to get honey enough to winter on, consequently I fed them a supply from a quantity that was melted from combs taken from hives out of which bees died last winter.

It was cleaned by heating last spring, and without being heated again was fed to said swarm in September, and well capped. The queen of said swarm was very prolific, and as late as October the central sheets in the hive were filled with brood down to bottom, and the swarm was large, and seemed healthy and lively, until about the middle of December, when they began to come out of the hive, more or less every day, and leave, never to return. By shutting the hive, I found that from 20 to 50 would accumulate each day at the entrance. The number gradually increased until it reached several hundred per day. The hive was left on the summer stand, and well quilted on top. No unusual appearance of bees on inside of hive, until a short time before the last of them gave out, when I shut them up, and dysentery was the immediate result. The queen lived as long as any bees did, and there was a little brood in the hive when the last of them died, which was the last of February.

Now, I should not be thus particular about this case, if I had not lost stocks in this way heretofore. The first instance of the kind in my own apiary occurred some four or five years ago, and every year since I have lost one or more swarms in this manner. With the exception of the one lost this winter, all had their natural stores.

Now, all my attempts at a solution of this difficulty have entirely failed, and the object of this is to seek light on this mysterious phenomenon. If you, Mrs. Editor, or any of your correspondents, can give a solution of this question, at least one of your readers will be greatly obliged.

Ellington, N. Y.

N. M. C.

We will attempt no solution of this matter. We cannot think that the honey fed to them had anything to do with it. Were they kept in the cellar, or on their summer stands?

Will some one who has an opinion on this subject answer this query?

The winter was very mild here. I saw bees gather pollen or bee bread the 24th of February. The color of the pollen was white and yellow. Is this not rather uncommon, that they gather pollen so early?

I use the Langstroth hive. How far should the hives stand apart? My place is very much limited, and I like to increase my bees. Am a merchant, and live in town.

FR. KRUEGER.

Kentucky.

We think it a week earlier than

usual in your latitude. You can set the hives very near together, if you are careful about painting the fronts different colors.

I had, a number of years ago, a case similar to the one of J. W. Sperring, page 19. The queen was hatched in a full colony. She was a beauty, of medium size. I examined the hive on several occasions for eggs, before I found the queen laying. After finding eggs, I concluded, of course, everything was right. On examining this stock in the spring, I found eggs. After a week or two, I examined again: no brood or larvæ, but eggs. In a few days I examined again; found things in the same condition. She was barren, is the name I call it. It is the only case of the kind I ever had. I know of no cause. The queen, as far as as the eye could judge, seemed perfect. I will report a case of a heavy loss in bees belonging to a neighbor, wintered exclusively on sugar syrup, fed during the winter. They now have the diarrhea badly. The weather is too cold to take them out of cellar to let fly. The man himself is not to blame; he did not buy the bees till the last of October, and then took them home, put in cellar October 27th, and began feeding. The syrup was not capped over.

All my bees are in the cellar yet, except a dozen stocks, which I took out on the 2d inst. The weather since has been too cold for them to fly. A few of them I bring into the kitchen at night, so as not to stop breeding. I want to get some drone eggs laid.

T. G. McGAW.

Monmouth, Ill.

We do not know what effect this will have, and dare not advise. Can any one answer from his own experience? Guess-work not in order here.

I will answer why the man's bees would not stay in the hive that had plenty of honey. They lost their old queen. They raised a young queen. She came out to meet the drone. She had no brood in the hive to keep the bees. They followed their queen. My neighbor had a colony in the same condition, two years ago. He had better unite them with a colony that has a drone.

JOHN SCHEERER.

Ridgely, Platte Co., Mo.

We think this correspondent has given one reason why bees leave their hives in spring. We have seen several cases among a neighbor's bees this year, where the desertion was clearly for the reason given. The black queens to these hives were removed late in the fall, and Italians given to them. The hives were not examined in the fall after the queens

were released, and, no doubt, were killed. The young queens reared were not fertilized, and this spring came out for that purpose—unsuccessfully, of course.

When the weak in knowledge falter, where should they go but to the fountain of wisdom? So, here are lots of questions. Don't you ever tire posting such poor ignorant beeists?

Saturday, March 14, was a lovely, warm, still day. I set my bees on the summer stands, and gave them a nice fly. They had become very uneasy, and more than enjoyed their liberty; but I did not dare to trust our treacherous March storms, and put them all back, but first carefully examined every hive. Found all bright, dry, and nice; combs very little moldy in only two. All had brood in all stages, from hatching brood to eggs; queens all smart and bright, but all were weak in food. I know they cannot live until the honey harvest. I made candy from white sugar—5 lbs.; made it soft, and fed all by laying on and between the frames; on six of the weakest set a box of honey, which was all I had.

Now, will they take the honey down, and can I do any more? They have lived so far, I cannot bear to think of losing them. I have been so unfortunate the two past winters, I felt I'd learned some hard lessons by dear experience, and hoped my losses were over. If I can do anything more for them, please to inform me soon. I fear I can't set them out safely before the middle of April. If they had food enough, they would do nicely, I think. They were so very heavy in bees. They have consumed more than I thought. Besides, they have been breeding all winter. I looked into one hive each month, and found brood every time, also eggs; now they have considerable,—some hives five frames,—and but little honey. About how many pounds of candy to a hive will keep them until June? We have no honey gathered here before.

I have the promise of one more subscriber to the JOURNAL. We are fifty years behind the times, and it would take Moses and the prophets to convince our old fogies.

Osseo, Mich.

MRS. M. A. BILLS.

The candy will be all they need, prepared as you have it.

After April 1st, leave them out; cold will not hurt them for a few days at a time.

It is difficult to say how much they will need before flowers—seasons and localities and bees differ so much. They will not waste it if you give them too much.

One question in regard to bees: Should not a pure Italian queen produce a progeny uniform throughout the colony, and should it be three or

four bands? I have four tested queens, all warranted to be pure, bought from different breeders and not one of them but that produces a few workers that are black.

I also have a black queen that produces a progeny just as bright, and less blacks among them than the pure queens.

Pure, or not pure? Let us hear from the judges of Italian bees.

Where is Dr. Bohrer?

Will candied honey in the combs do to use in dividing in the spring?

MARTIN RICKARD.

Yes, if the bees will take it. In some stages of granulation they will not touch it; in others they use it, but with some waste. After the weather becomes warm, it melts, and can then be used, or else the bees remove it from the comb.

As many apiarians allow their bees to swarm naturally, and always will do so, I want to give them the needful information to prevent them from going to the woods. I prepare my hives by inserting two or three pieces of comb in the hive, to induce them to stay, and keep the hive in a cool place. If on the stand, I shade it, and put a block, one inch thick, under each front corner, and have a board or cloth in front to put the bees on. I generally rub the hive with common balm just before putting the bees in, for this is a favorite with bees. Then I have a box of half-inch board, six inches high, 14x18, ready at hand. When the bees come out and alight on a tree, I take a pail of water, cold from the well, and with a broom brush throw up water above them, and it comes down like rain and cools them off; then I take the box and hold it under them, and shake them in or cut off the limb, and carry it to the hive; then I sprinkle the hive and ground near by, and some on the bees, and they go up readily. In half an hour I sprinkle them again, and so continue till the air is cooler. I have not lost a swarm going to the woods in several years. It has been asserted that bees sometimes come out and go direct to the woods, but I have hived about a thousand swarms, in years back, and never knew such an instance. They always alight first.

A. WILSON.

Marcellus.

I will give you my plan of uniting queenless stocks in spring with other weak stocks. I take the hive off the stand, place the cap on the stand, raising half an inch in front for the bees to enter; then take out and brush off the bees; they will readily enter the cap and cluster in the top. If done a little before sundown, on a pleasant evening, they will not leave the cap, and at dusk take the cap and place it on the hive with which you wish to unite them, opening the top sufficiently for them to go down. By morning they

will be a united family, "snug as a bug in a rug," without the loss of scarcely a bee. My hives are all one size, the caps fitting on any of them. It is less trouble to unite that way than any other way I have ever tried.

R. W. HARRISON.

Rockingham Co., Va.

Mr. Salisbury, of Camargo, Illinois, writes us that out of 152 colonies of bees he lost none during the past winter. Good enough.

I started in the bee business here, two years ago last fall, with thirteen colonies and came out the next spring with only one colony left. I think the difficulty was: my bees all came out during the winter and were lost on the snow, as we had about eight feet of snow that winter, and I kept it all shoveled away from the hives so my bees could get out. Since then I have let the remaining hive remain covered in the snow and they did well last season, and at the present time seem doing well under ten feet of snow. I have been trying this past winter to get a start again by finding wild bees and trying to save them; have cut three trees and lost all the bees; have several trees to cut yet. How can I save the bees?

I see by the *Bee Magazine* that some Eastern bee-keepers have thought that bees in this State did not lay up any honey. I cut one tree this past winter (I think in January) which I took 250 lbs. of honey from. And some seem to think that bees do not raise any young during the winter. This is a mistake, so far as this locality is concerned, as every tree that I have cut had young brood in it, from small eggs to full developed bees. Is it possible for them to make a queen at this season, here? It will be about six weeks before they can gather anything, even from the willows.

S. A. WILSON.

Emigrant Gap, Cal., March 24, 1874.

Will some old bee-hunter give Mr. Wilson advice how to save his bees from a tree?

We do not think he has any drones now. If he has, he can rear young queens, trusting to some pleasant day when queens can fly to be fertilized.

In looking over the article describing our new bee-hive stand—March No., page 58—I find the types have made several mistakes, which please correct in your next. First, in left hand column, read, "place A and B side by side 12 inches apart," instead of 18 inches, as the types have it. In right hand column, 18th line from top, the types got in a hurry and jumped over five or six lines at one leap (perhaps it was near dinner time). It should read, "Place it between A and B with its back edge just catching on the front edge of D; it is held in place by two pieces each  $\frac{1}{2}$  inch square and 9 inches long nailed, one on the inside of A, the other do. on B,  $1\frac{1}{8}$  inches below their

top edges." In the 8th line below this, instead of the wedge-shaped pieces, read *two* wedge-shaped pieces.

S. W. STEVENS.

Ridgefield, Conn.

The model to this bee-stand, or rather improved bottom board, is received, and we think it as perfect as it can be for the purpose designed. It is easily and cheaply made, and we shall have some made for trial.

The queen I got from you last season proved to be very fine, her offsprings are very handsome. My bees have wintered well; have not set them on the summer stands yet. They have consumed but little honey, and most of the frames are tolerable well filled. Would it be a good thing for me to extract all the honey out of the six center frames, leaving the two outside ones for them to feed on. I thought of extracting when I put them out. Please give me your opinion on it.

HUGH WHITE.

Illinois, April 1.

We would give them empty comb in some way. If you have some to spare exchange one or more empty combs for full ones, reserving those with honey in them to give back as they need it. If you have an empty comb extract from some, even if you feed the honey back again. Honey when fed at this season should be diluted with water.

"Will you tell me why candy is better than syrup or honey to feed bees? I have three colonies that must be fed from now (March 31st) until there is plenty of bloom, and I would like to feed them just right. Will maple syrup answer—if so, how must I feed it?

"AN EARNEST BEGINNER."

Candy is better in winter because all that is desirable *then* is to sustain life, and feeding syrup makes them uneasy unless they can fly out. Nothing is better than sealed honey if bees have enough of that *during* winter. At this season of the year, however, the feeding of syrup seems to stimulate the queen and bees and greatly foster the rearing of brood, which is the one thing now to be desired. Syrup is better than honey because it does not attract robber bees—as the feeding of honey always does.

We sometimes find a hive in spring containing very few bees but much

honey. In this case would take away most of the combs of honey, leaving only what the bees can well cover, and then uncap with a sharp knife a few inches of the honey, near where the bees cluster. When this is taken away, uncap more. As fast as the bees increase, give them more comb.

Where there are more bees and honey is scant, see that they have all they will use in the shape of syrup or honey diluted till it is the consistency of that freshly gathered.

We have fed maple syrup formerly, with no satisfactory result. Aaron Benedict, however, sends us the following, and it is worthy of attention by those who can procure maple sugar more rapidly than coffee A. We shall be slow to believe it is any better than sugar.

MAPLE SYRUP FOR BEES.—I have never had better luck stimulating bees to breeding than I have the present spring. I commenced feeding my bees in February with thin syrup made from maple sap. At the present writing, March 17, young bees are sporting themselves in front of a large majority of my hives as though it was the middle of May. It may be somewhat owing to the season, but I am satisfied that maple syrup, clarified and of the right consistency, will stimulate to breeding equally as well as honey, if not better. Now, if this actually be so, those having sugar camps can feed their bees cheaply and at the right time. Bees should not be stimulated for breeding much before sap will run; then they should be encouraged to breed as rapidly as possible. Although this will appear a little out of season, it would be well for bee keepers to bear in mind and try it another season.

A. BENEDICT.

I have sixteen colonies of black and one of Italian bees. They wintered on their summer stands and I lost none. Bees are all wintered here on their summer stands, and there has been some loss this winter.

Will bees always settle before going to the woods?

How comes so many Italian bees among my blacks, if they don't mix? I placed drone comb in the brood nest of my Italians, expecting early drones, but find black drones hatched before any Italian eggs were laid. Italians very strong. That is not according to teaching.

JOHN S. LINGLE.

Owen Co., Ind., April 3.

We never knew a swarm to leave before settling when it came out of the

parent hive, but have sometimes seen them rush out of a hive they had been put in a day or two before, and go off at once, evidently determined on a "change of base."

We suspect you have black queens that have mated with Italian drones among your bees, which accounts for the "yellow jackets" in black colonies.

We have never failed to have Italian drones two weeks before blacks in our experience. Will some correspondent answer Mr. L.?

There has been considerable loss among the bees last winter, but mostly among the log hives. They say moth was the cause, but I say old bees and scant of honey. The winter has been unusually warm, thermometer to zero but once, then 4° below.

G. R. HUFFMAN.

I notice in the March number of National Bee Journal that your favorite size for frames is 12 inches square, and that your hives hold from ten to twenty such frames. Now what I wish to ask is, is the twelve inches square solid comb, or do you have a center piece across the frame, if so, at what distance from the top is it placed? Again, is your 18 or 20 frame hives used exclusively for the extractor, or do you use, or can there be small frames fitted in a few of them on one side, for small frame honey, or by leaving out a few of them (the frames) could there be one range of small boxes, 2 or 3 tiers high, and will the bees work in such frames or boxes, as well or better than if placed on top of brood frames.

G. R. H.

We put no centre bar across the frame—having twelve squares of solid comb, and have no trouble whatever with breaking down. There is no want of support. We would say however, that a large majority of the combs we have in use were transferred from other frames to this size, and that ever since our fire of last year we have been so well supplied with combs that our bees have built very little new comb. We state this, thinking perhaps we have not given the square frame a fair test in this respect. We have however, as an experiment extracted honey from new 12-inch combs, without any difficulty.

Our 18 and 20 comb hives are used solely for the extractor, but there

would be no trouble in fitting small frames in some of them where surplus honey was desired in this way. Small boxes could be fitted also into the empty space made by taking out two or more combs.

It is a little more difficult to keep the queen out of side boxes than those placed on the top, and *we* do not find the bees as ready to store in them; but this is another of those points on which "the doctors disagree."

Will you describe the standard hive you use in your Apiary, especially whether tight or loose bottom boards, and side or top opening?

Would you recommend "Novice's Metal" corners for comb frames? Will they not be cold for the bees to travel over in winter, and liable to get rusty and corroded?

After removing from winter repository, and setting on summer stands, do you leave on quilt or substitute tight honey board?

If you leave on quilt how do you manage to feed from top of the hive?

What is just the right quantity to feed at a time to stimulate a strong swarm to raise an extra amount of brood during the months of March and April? How much would be "one good square meal?"

Is it necessary to add cream of tartar, or glycerine, to syrup made from good A coffee sugar, and if not, how are we to keep it from crystallizing?

Would you advise to put off dividing till the Linden harvest is over "*a la Hosmer*" or do your swarming early, as you have been wont to instruct in times past?

Which is the best sugar to use for syrup, A or crushed (or lump)?

Is Dadant's article in gleanings "that more brood can be raised in a hive with Quinby than American size of frames," in accordance with your experience; and if so, why have most apiarists so long labored under a delusion as to proper size of comb frame in order to best economize the heat of the bees.

C. R. I.

We prefer loose bottom boards. A side opening is convenient but not necessary. A little practice will enable one to take out the frames at the top without trouble. The description you wish was given in last number.

We do not know that the metal corners are injurious in any way. Ours in use have not rusted, but we do not find any special advantages in them. When bees are opened only "semi occasionally" they will not

be fastened down, and on that account are much better.

We use no honey boards—leave on the quilts until boxes or cases are used above the frames. All through summer they are advantageous on weak or newly formed colonies. When feeding on top we cut a small hole in the quilt over the cluster and put the feeder near it; or have a division board in the hive and put the feeder one side of that, allowing the bees to carry the food in to the combs. This they will do only in warm weather.

There is no rule to give for any exact amount of food to be used; it depends on the strength of the colony, and also on how much sealed honey they have in the hive. As much as they will take in, fed to them every warm day or night is as good a rule as any. We do not want them to store it now, but use it for the young brood. No cream of tartar or glycerine is necessary; good sugar is what they want.

We would let the time of making swarms depend entirely on the honey resources of the locality. With us, where wild fruit and orchards abound, it is best still to divide early—indoors, it is absolutely necessary—unless mammoth hives are used, and great care taken, dictated by experience. In these favored localities, one who understands it can divide early, secure large yields of honey, and then divide again—if they have young queens reared for the new colonies.

Coffee A is good, but does not go as far, we think, as log or crushed sugar.

We like the square frame better than the one Dadant recommends. But "who shall decide when doctors disagree?" It MAY be a matter of fancy.

Are you not in error in saying bees will not use combs that are turned on the side, in transferring? I have done so repeatedly, and could never see any ill effects from so doing. Last season I filled the frames for over twenty artificial swarms, with combs I purchased of neighbors who had lost their bees the preceding winter, and a large proportion of the combs were taken from tall



box hives. They would fit frames for the Langstroth hive best when turned on the side, and whenever such was the case, they were placed in that position. The bees did well in them during the summer, and I wintered one hundred colonies without loss, up to March 1st, and with the loss of only one colony since that date, and they starved with plenty of honey in the hive, by clustering away from it at one side of the hive, during the severe cold that occurred the second week in March. When I can conveniently do so, I always place the combs "right side up with care," but I do not attach as much importance to so doing as I formerly did, as I find my bees will use them, and glad of the chance, even if they are turned on the side.

JAMES BOLIN.

West Lodi, O., April, 1874.

We give place to this, having found long ago that our bees would not do just like other people's. We will give them some comb sidewise this season, and report progress. The bees may have learned the value of comb of late years, and found out how to make it over. We see "Novice" says also that it makes no difference. We only know that we put comb sideways and up side down into strong colonies some years ago, and it remained there all summer empty and untouched, while on every side of it new comb was built and filled. Shall be glad to have it different now.

A word about the "new bee-hive stand," described in the March number by S. W. Stevens. It seems to me that it is objectionable on several accounts. Perhaps the first objection would be the work required in making it, though if it were really beneficial that would not be worth mentioning. Mr. Stevens says "it also admits air where it is most needed, viz: in the center of the hive." I know I am but a tyro in bee-keeping, but it seems to me that the center of the hive and under the brood nest is just where we don't want a current of cold air admitted. "The entrance is always shaded." I think the entrance to the hive, especially in early spring and before the hot weather, should have the full benefit of the sun. (Perhaps I am wrong.) With the entrance shut out of view, as it of necessity must be with this stand, it would be almost impossible to detect when your bees were robbing each other. And the bottom of the hive left exposed would make a splendid hiding place for the moth miller.

Another word about stands. Is it better to have them inclined than level? Or, in other words, will it make any difference to the bees whether the frames hang level or are inclined?

In the Langstroth, and similar hives, you can not incline the bottom, or stand, without inclining also the frames.

CHAS. H. WHITMOOR.

Iowa, April 6, 1874.

Some one, years ago,—we believe it was Quinby—(if wrong we hope to be corrected) advised to have all hives incline from rear to front as a preventative for crooked combs. It was asserted that when so inclined, the bees uniformly constructed straight combs. Many tried it. It was easily done by putting higher standard on the back than on the front part of the bottom board. We tried a number and had no crooked combs built, but then we never did have crooked ones built under any circumstances. We do not know what the result of the experiment was, with others. It can easily be tried, and on some accounts we much prefer to have the hive incline from front to rear.

We liked Mr. Stevens' stand so much that we have ordered some made for trial. They are *not* expensive. We think, if you make one, it will not appear as complicated as it does in the description. The entrance is so constructed that no draft can be admitted. We do not as yet recommend it—can only say, "we are trying it."

We think Mr. Lewis will find no trouble in detecting robber bees, and we are sure so careful a bee-keeper as he is will not allow any millers around his hives.

WE are requested to have a department of the JOURNAL especially suited for beginners. We would gladly do this if we had room for it; but every month interesting communications are received that we cannot publish, and by delay they become unseasonable. We have on hand now good matter enough to fill the JOURNAL three months to come. We will gladly answer questions in the "Notes and Queries" department, and think they will find all they need there. There are several handbooks for beginners, which are, in all respects, reliable, and we will send either of

these free, postage paid, to any one who sends us a new subscriber to the JOURNAL.

Our little book, "Bees and Their Management," will be sent free to any subscriber who will ask for it.

THE Berkshire pigs which we offer as premiums in this number of the JOURNAL will be sent from Glen Farm, where the best Berkshires in the State are kept. They will be selected with care by Mr. Jones, and warranted to be perfect in all respects. Either sex desired will be shipped. If the whole number of names necessary cannot be secured, let the one getting up the club report to us, and liberal arrangements will be made.

The bronze turkeys and fowls offered are warranted to give satisfaction. Those who desire to improve their stock of poultry will find this a desirable opportunity.

The bulbs and plants offered will be from reliable green-houses, and of choice quality.

#### TESTIMONY OF BERPLEPSCH AS TO VALUE OF RAPE FOR HONEY.

DEAR BEE FRIEND: Your appreciated letter of Jan. 19th inst., has safely come to hand \* \* \* In answer to your question, I would say that I am able to answer you with certainty.

During the time between the years of '41 to '58, that I was a practical agriculturist, I cultivated rape to a large extent, and am, in consequence thereof, and from knowledge otherwise gained, able to testify most assuredly—that in all Germany, there is no other plant yielding more honey than rape. I know of instances having occurred with me, that a very populous colony of bees, during the time that rape was in blossom, gained a weight of 20 lbs. *in one day!* The 20th of May, 1846, there were near me a 100 morgen (65 acres) field of rapp in full bloom. The weather was excellent, and my best

colony, which I had placed on a platform scale, gained, that day, over 21 pounds. (How is that for Hosmer? K. B.) Considering the value of rape as a field crop, it is very great; the soil, however, must be rich, and well tilled. Very often a morgen ( $\frac{2}{3}$  acre) yields a net income of 40 Prussian Thalers (\$32 per American acre.)

In friendly greeting and handshaking,

Entirely Yours,

AUGUST, BARON VON BERLEPSCH.

#### PRICES OF HONEY

DES MOINES—20 cts extracted, 30 cts in comb.

CHICAGO.—Choice white comb honey, 28@30c; fair to good, 24@28c. Extracted, choice white, 14@16; fair to good, 10@12c; strained, 8@10c; strained, 8@10c.

CINCINNATI. — Quotations from Chas. F. Muth, 976 Central Ave.

Comb honey, 15@35c, according to the condition of the honey and the size of the box or frame. Extracted choice white clover honey, 16@18c.  $\frac{7}{8}$  lb.

ST. LOUIS.—Quotations from W. G. Smith, 419 North Main St.

Choice white comb, 25@29c; fair to good, 16@22c. Extracted choice white clover honey, 16@18c. Choice basswood honey, 14@16; fair to good, extracted, 8@12c; strained, 6@10c.

NEW YORK.—Quotations from E. A. Walker, 235 Oakland St., Greenpoint, L. I.

The sale of honey is dull here, and a large quantity is now upon the market. The prices rule as follows:

White honey in small glass boxes, 25c; dark 15@20. Strained honey 8@12c. Cuban honey, \$1.00  $\frac{7}{8}$  gal St. Domingo, and Mexican, 90@95  $\frac{7}{8}$  gal.

SAN FRANCISCO.—Quotations from Stearns & Smith, 423 Front St.

Choice mountain honey, in comb, 22 $\frac{1}{2}$ @25c; common, 17@20c; strained, 10@12c, in 5 gallon cans. Valley honey, in comb, 12@17c; strained, 8@10c.

Subscribers who receive other papers and journals at club rates with the BEE JOURNAL, should notify the publishers, when they fail to get them regularly, and not us. We cannot be responsible for missing numbers of club journals.

### BOOK NOTICES.

We have examined with peculiar pleasure a Class Book of the Geography of Iowa, prepared by J. M. Ross, and just published by Mills & Co., of this city. It seems to us just what is wanted in our schools. We have long been of the opinion that the time spent in the study of geography as usually taught in schools was thrown away. This work begins with our own State—treating of its surface, its divisions, its government institutions and laws in a most perfect manner. It should be introduced into every Iowa school; indeed parents may, most of them, study it with profit. We hope this is but one of a series that will treat of general geography as well as this work does of the State.

### BUSINESS NOTICES.

Bee-keepers in Northern Iowa, Illinois, or Minnesota who are not successful in securing large yields of honey from their bees, or a desired increase may find it to their advantage to correspond with J. W. Kosmer, Janesville, Minnesota, enclosing stamp.

We have just received of Mr. Joseph W. Vestal, of Cambridge City, Indiana, his Wholesale Catalogue of New, Rare and Beautiful Plants, including Greenhouse, Hothouse, Bedding and Hardy Herbaceous Plants, Roses, Flowering Shrubs, Ornamental Vines, Small Fruits, &c. His prices are reasonable, and he fills orders promptly, shipping to all parts of the country, either by mail or express, packing with care, and guaranteeing them to reach their destination in safety, without danger from frost, regardless of the weather. All who cultivate plants or flowers should have one. He sends it free of charge to all who apply. See his advertisement.

### Scribner's Monthly.

The summer campaign begun; "another great literary sensation," the Modern Robinson Crusoe with 150 beautiful illustrations. Messrs Scribner & Co. have secured for serial publication in *Scribner's Monthly*, M. Jules Verne's Latest Story, "The Mysterious Island," in which, not content with the old stories of "Robinson Crusoe" and the "Swiss Family Robinson," the writer undertakes to show how a party of men cast upon a mysterious and desert Island, may live by their scientific resources alone, without the aid of any wreck to draw upon for the material of life and comfort.

The party are Americans who set out from Richmond, Va., during the seige, in a balloon. M. Jules Verne unites with an accurate scientific knowledge, an exuberance of inventive genius that has fascinated the world.

The theme of the present story affords the author the finest opportunity for the display of his peculiar gifts. The story will be profusely illustrated, and is begun in the April number.

For sale by all News Dealers or Booksellers. Price \$4.00 a year, 35 cents a number.

SCRIBNER & Co., 654 Broadway, N. Y.

### American Boneless Sardines.

Until within a few years ago, the delicate and delicious little fish called the Sardine, was considered too expensive a luxury to be indulged in, except by the comparatively rich. They were then imported from France, Spain, Portugal and Italy, but even then so great was their consumption, that the importation into the United States alone in 1870 amounted to 125,000 kilogrammes.

Seeing the increasing importance of the trade in this article of food, it occurred to a few gentlemen of enterprise in New York, that among the numerous species of fish which abound on our coasts, there must be some which could be put up in the same manner as the imported article, and placed in the market at much less cost. Accordingly, early in the year 1870, a suitable site was obtained, and a factory and other necessary buildings were erected at Port Monmouth, N. J. Experimenting was now commenced and at length at the suggestion of an old fisherman, who is still about the establishment, a fish commonly called the Ocean Trout (*Trutta Oceana*), was found to answer the purpose in every way. These fish, which belong to the genus, *Salmo Fontinalis*, much resemble, and are said to be identical with, the silver, or Sea Trout (*Trutta Marina*). They are shaped like the brook trout, and otherwise much resemble them, except the spots on their bodies are a dark brown instead of the bright red ones which characterize the latter.

Large schools of these fish varying from 3 to 6 inches in length, migrate from the ocean to the bays, harbors and rivers of Canada, the Eastern and Northern States as far south as Long Island, where large numbers are taken in fine seines, from the latter part of April to the early part of November.

They are put up with olive oil, in hermetically sealed tin boxes, in the same manner as the imported fish, being first divested of their heads, and all bones removed, the whole process being done by machinery.

The American Sardine Company have their factory at Port Monmouth, N. J., as before stated, and their office at 31 Broad street, New York, and commenced their operations in 1870 on a comparatively small scale, and have since that time more than quadrupled their business, the demand for this delicate and nutritious fish being so great that the Company have been compelled to largely increase its manufacturing facilities, their works now covering more than an acre of ground; and the importance of this industry may be imagined when although it must be remembered that the work is all done by machinery, the Company employ 180 hands.

The American Sardines are of as fine flavor and of greater delicacy than the most esteemed French sardines imported, besides possessing the advantage of being boneless. The presence of bones, which it is almost impossible to remove, being the great drawback to the sardine proper, which, by the way, is a species of herring.

There is no doubt that the American Sardine Company, at present consisting of James E. Pepper, Esq., President, and Frederick F. Heals, Esq., the Secretary and Treasurer, have introduced an article into the market which is beneficial to the community at large, and they are deservedly reaping the benefit of their enterprise.

Besides supplying the home market, they export largely to Liverpool, Hamburg, Austria, &c.; they have also established an agency at Vienna for Austria and Russia.

All prejudice against American Sardines will be removed by giving them a trial, especially when we inform the reader that so highly are they thought of abroad, that they obtained the Gold Medal and Grand Diploma of Merit at the Vienna Exposition, 1873.

No grocer's stock is complete without a supply of the American Boneless Sardines, the price being far below that of the imported article, and the demand for them on the increase.—*Editorial from American Grocer.*

# NATIONAL BEE JOURNAL

## ADVERTISERS' DEPARTMENT.

### ADVERTISING RATES.

SPACE.	1 Month.....	2 Months...	3 Months...	6 Months...	1 Year.....
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3/4 Column.....	6 00	10 00	15 00	20 00	30 00
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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.

### IMPORTANT NOTICE!

We have received so many inquiries about the hive we use, and so many requests for pattern hives that we have taken pains to arrange for the manufacture of a quantity. We, therefore, announce that we can supply hives single ones for sample, and by the quantity, finished up, or in pieces ready to nail together. We shall put them as near actual cost as possible, but are not prepared until next issue to state exact price. The hives will be so simple that any one can make them,—after having one for a pattern,—but we can get out the material cheaper than it can be done by hand. For particulars, address this office, until next number.

FEELER, PHILLIPS & Co.,  
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J. C. FEELER,  
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### THE COLORADO FARMER,

A Weekly Farm, Stock & Home Journal.

Office, 210 16th St., opp. American House,

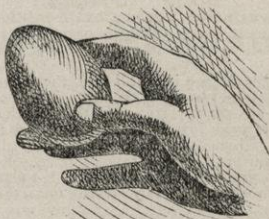
DENVER, - - COLORADO.

Subscription \$2 per year; single copies, 10 cents.  
3-1t

### PURE ITALIAN QUEENS!

I have on hand, for the spring market, a limited number of Queens bred from select—price Five Dollars—and shall be able to furnish pure Queens throughout the season at reasonable prices. Notice Queens, \$1. A. SALISBURY, Camargo, Douglas Co., Ill. 4-tf

### EGGS! EGGS! EGGS!



From choice fowls. Houdans, Partridge Cochins White Leghorn, Dark Brahma, and Red Game Bantam. Safe arrival warranted. We also guarantee that a large proportion of eggs will hatch if properly cared for on arrival. We took Premiums on all our fowls at State Poultry Exhibition. Address M. A. & M. F. TUPPER, Des Moines, Iowa



### S. D. BARBER, MATTOON, ILL.,

Dealer in all breeds of purebred Poultry. Eggs, \$2.00 per dozen. Dark Brahmans and Buff Cochins a specialty. Also, Breeder and Dealer in Italian bees and queens

Inventor of the  
Improved Conical Movable-Comb Bee-Hive.

Agents wanted; large commissions given. Circulars free. 4

NATIONAL

### POULTRY JOURNAL.

A NEW ILLUSTRATED MONTHLY, DEVOTED exclusively to the interests of Poultry Breeders.

ONLY \$1.00 PER ANNUM.

SEND FIFTEEN MONTHS TO ALL

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Send 10 cents for specimen to

C. P. CARPENTER, Editor,  
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THE BEST IS THE CHEAPEST.—Murphy's Honey Extractor is the best and most desirable extractor in the market. For further particulars, address R. R. Murphy, Fulton, Whiteside County, Ill. 4 6t

### 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.

## Du Page Co. Nurseries,

LEWIS ELLSWORTH, Prop'r,

NAPERVILLE, - ILLINOIS.

I have a general nursery stock including apples, pears, plums, cherries, grape vines, raspberries, blackberries, strawberries, gooseberries, currants, etc., ornamental and deciduous trees, shrubs, vines and plants, roses, greenhouse and bedding plants, bulbs, hedge plants, etc., at wholesale and retail.

Evergreens, nursery grown, by the million, from a few inches to six feet high, at prices ranging from 50 cents to \$5 per 100, and from \$2.50 to \$3.50 per 100.

It should be borne in mind that there is **nothing so dangerous as delay**. If put off a few days, the season for transplanting will be gone, and a whole year lost. My stock is very full and complete. Those who set out trees and plants will be rewarded for their labor. If you have but a small lot, you can make it more beautiful and certainly more valuable by setting out a few trees, shrubs, plants, and vines. Do not hesitate to send me an order, if it is but a small one, which will be filled with the same care and attention as a large one. Prices reasonable. Catalogues sent on application. 4tf

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The newly introduced

### Curentio-Proof Native Plums

Furnishes good fruit in abundance from June to November.

**DE CARODENCE,** Ripens in JUNE.

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One Tree of each sent by Express for \$2.25.

The two UTAH DWARF HYBRIDS, (Red and Black) said to be a cross between the Plum and Cherry, which form small trees 6 or 8 feet high, and produced an abundance of fine fruit, 75 cents each.—Cions for grafting of 12 improved native varieties can be furnished. Address for circular and price list.

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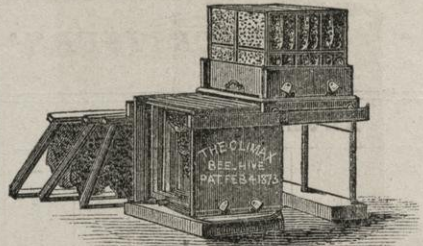
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As good as the best, simple, durable, and cheaper than dirt. Made by KRUSHK BROS., Berlin, Wis. 4tf

**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 apianian supplies. Also, agent for the NATIONAL BEE JOURNAL. Send for circular and price list for 1874. Address A. J. HOOVER, Plymouth, Luzerne Co., Pa.

## Climax Bee-Hives



And material for the same cut to fit ready to nail, sent from factories nearest to purchasers, at the

### Lowest Living Prices.

It is by far the BEST BEE-HIVE in use. Territory for sale at Lowest Prices. Also,

Italian Bees, Queens, Extractors, Seeds of Honey Plants, Books, Etc., Etc., Cheap.

Agents wanted everywhere. For full particulars, descriptions and prices, send for FREE CATALOGUE to  
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The Coming Hive is now among you!

## Maner Bee-Hive and Trap

Patented April 15, 1873.

Gray-haired Apianians smile and exclaim, "How simple and yet how perfect! Why did some one not think of that half a century ago?"

You can divide a colony in three minutes without their knowing it;

Capture all the drones in one afternoon;

Winter well on the summer stands in any climate;

Italianize a whole apiary in one season with one Italian colony;

Take half a swarm and set on the parlor table to amuse your bee friends.

Two Medals of Honor and not a year before the public.

Your Township and a Sample Hive for \$15.

Adjoining Townships for \$5 each.

Send stamp for Illustrated Circular.

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4-1t.

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A NEW MONTHLY MAGAZINE.

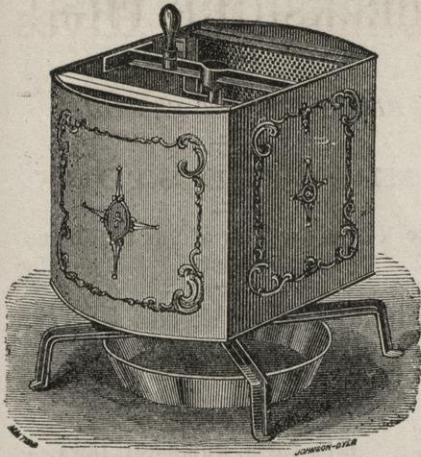
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A Specimen Copy will be sent to any address, post-paid, for TEN CENTS.

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500 HONEY EXTRACTORS, | 300 GERSTER'S WAX EXTRACTORS,  
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Also,  
IMPORTED QUEENS, HONEY KNIVES  
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**Bottom Prices.**

Circulars free. Address A. GRAY & CO., Importers, Reily, Butler County, Ohio. [4-tf]

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**BRAHMAS !**

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EGGS FOR HATCHING, FIVE DOLLARS  
PER SETTING.

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For \$1 I will send a recipe for preparing a sure remedy that will destroy the moth worm. This is no humbug, but a scientific fact, demonstrated by thorough trial. Comb is chemically prepared and placed around the apiary for the moth to deposit her eggs in, and when hatched the grub will commence to eat the comb, then he must die. No poisons used. It grows in every garden, Address P. P. PARKER, Parkersburg, Butler County, Iowa. 3-tf

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I will sell full stocks this winter, or queens in the spring. Single colonies, \$15 each; queens of this year's growth, \$8—to be shipped when called for; to be reared next season, \$5.

I have pure stock, and there cannot be found any other bees of any kind nearer than 25 miles; consequently, I have no trouble in fertilization.

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Communications to reach me should be sent via Coffeyville, Kansas. 4-tf

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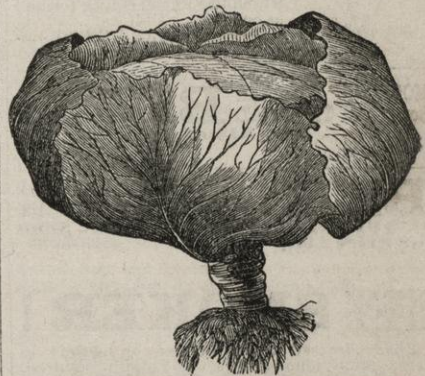
The only known specific for tape-worm that will cure all cases in two hours, if taken strictly according to directions. It is a vegetable remedy, safe, sure, and not unpleasant, and will eradicate every vestige of this terrible scourge from the human system. Directions, Medicines, and also references, if required, can be had by applying to me. **MRS. C. W. RABBETH, Naubuc, Conn.** 4-tf

**WANTED.** We will give energetic men and women

**Business that will Pay**

from \$4 to \$8 per day, can be pursued in your own neighborhood, and is strictly honorable. Particulars free, or samples worth several dollars that will enable you to go to work at once, will be sent on receipt of fifty cents.

Address **J. LATHAM & CO.,**  
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You will find in my Seed Catalogue letters from a score of people, who, by following the directions sent with every package of seed, have raised this Cabbage to weigh from 30 to 60 lbs. a single head ! I was the original introducer of this giant Cabbage, and my seed is all grown from heads that are extra large and very solid. Sent postpaid by me, 25 cts. per package ; \$1 per ounce ; \$10 per lb. My seed catalogue sent free to all applicants. 4-1t) Jas. J. H. GREGORY, Marblehead, Mass.

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A MOR BOYD, Pennville, Jav County, Indiana. Italian Queens from home-bred and imported mothers. Purity and safe arrival guaranteed. Send for prices. 4-6t



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They are hardy, and suffer little from disease.

They are fat and ready for market at any age.

Their flesh is of superior quality and their hams bring an extra penny when known. They bear freighting well. They feed well and grow fast. They have small offal. They are kind mothers and excellent sucklers. They improve all breeds upon which they are crossed.

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Stock from the pens of our best home breeders.

None BUT FIRST-CLASS PIGS SHIPPED.

Orders booked in rotation.

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**N. R. JONES & SONS,**  
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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.,  
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1 tf



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WESTWARD.		TAKING EFFECT		EASTWARD.	
Leave.		MARCH 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 "	12:20 "	
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 "	
8:00 "	4:10 "	lv D. Moines,	6:45 "	5:15 "	
10:45 "	4:35 "	Perry,	4:50 "	2:20 "	
12:00 "	7:45 "	Gr'd Junc.	4:00 "	1:00 a. m.	
	10:15 "	Ft. D., I've,		10:30 a. m.	

Arrive

Leave.

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

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Fare as low as the lowest. Sleeping cars on all night trains. GEO. H. GRIGGS, Gen'l Supt.  
JOHN GRIVIN, Gen'l Ticket Ag't. 4-1v

**MOCKING, European Song, and TROPICAL BIRDS**  
Address E. HARRISON, Springfield, Ohio.  
2-1f]

**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.

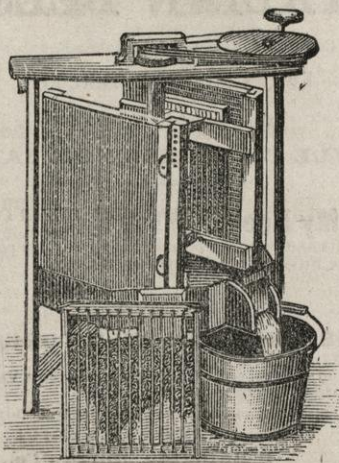
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**BINGHAM'S** Brahmas and Buff Cochins are bred from the best strains, and can't be beat by any. Send for circular and a

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

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HONEY EXTRACTOR!



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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.  
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THOS. ATKINSON, Live Oak, Fla.

novtf

**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**,  
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**BEEES! BEEES!**

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

**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

**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.

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**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 Apiarians in America

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**Send a Stamp for a Sample Copy.**  
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**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 Company, Des Moines, Iowa.

**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.

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Choice Colonies Only \$25

Strong Nucleus Colonies, \$15.

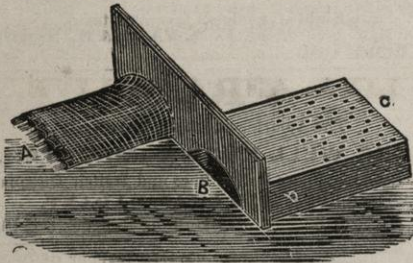


We have a few choice colonies of bees for sale, prepared for shipping as early as the weather will permit. Price in nice

## 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.

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

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Partridge Cochins..... \$1 00	Dark Brahma.....\$3 00
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Importer and Breeder of pure

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Twelve miles from main land.

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

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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.

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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.

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- One Colony of Pure Italian Bees, . \$15.00
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- 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."

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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.

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Canvassers wanted everywhere.

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

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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.

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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.]

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We can furnish everything needed about the Apiary, such as pure Italian Queens; six styles of Hives; Honey Extractors; Bee Feeders; Wax Extractors, \$4.00; Honey-Knives; Bee-Vells; the American Bee-Keeper's Guide, 244 pages, paper cover, 50c.; bound, 75c. Send for our illustrated 24-page pamphlet, containing general information, FREE to all. E. KRETCHMER,  
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**EGGS, EGGS, EGGS!**

Light Brahma, \$2 per doz. Dark Brahma, Buff, White and Partridge Cochin, Houdan, Black Hamburg, Black Spanish, Gray Dorking, Silkey White Guineas, B. R. and Ducking Game Bantams, Aylesbury Duck, \$3.00 per dozen. Black Cochins, Brown Leghorn, Rouen Duck and White Holland Turkey, \$5.00 per dozen.

**Stock Superior, and Eggs Fresh.**

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**C. W. HEATON,**

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**Beautiful Ever-blooming**

**ROSES.**

**Strong Pot Plants,**

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Our elegant Spring Catalogue for 1874, describing more than two hundred finest varieties of Roses, and containing full directions for culture, with chapters on Winter Protection, Injurious Insects, &c., &c., is now ready, and will be sent FREE to all who apply.

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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

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Also, young, well-grown, perfectly marked Cocks, at \$5 each, partridge.

Cochin Partridge Cocks, \$5 each. Trios of these birds at \$15.

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# Queen City Apiary.

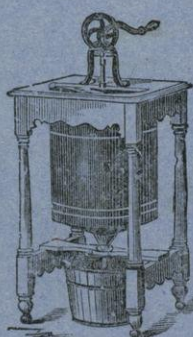
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## HONEY EXTRACTOR!

FOR 1874.



No. 1



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Manufactured under Letters Patent, granted January 7, 1873.

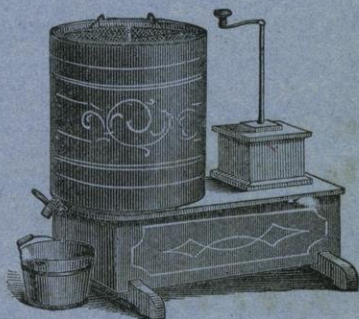
For extracting Pure Honey from old or new Combs, without breaking or injuring them, which are afterward returned to the Hive to be again refilled by the Bees.

### 500 Now in Use!

And the best of satisfaction is given.

**GET THE LAST!**

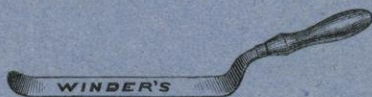
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## The QUEEN CITY.

(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

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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 uncapp. This knife is equally good for perfect or imperfect combs.

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