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THE NATIONAL BEE JOURNAL AND MAGAZINE.

[VOL. IV.]

INDIANAPOLIS, JUNE, 1873.

[No. 6.]

NORTHERN DEPARTMENT

Questions and Answers.--Continued.

BY HARRY GOODLANDER.

Well friends, I have bees again, and now I am ready for another bee chat.

You spoke of the bee disease. "How comes it that the bees die only in winter and not in summer, if the disease is contagious?"

They do die in summer as well as winter, but the loss is attributed to the moth in summer simply because the moth have possession of the hive before the loss is found out.

"When did you first notice this disease?"

About two years ago.

"Why do you recommend an unsparing use of the extractor late in the fall?"

You then take all unwholesome honey from them, and as sugar syrup is better, and by feeding it to them you induce late breeding and go into winter quarters with plenty of young bees.

"How do you winter your bees?"

I wrap cloths (generally old pieces of blankets and quilts) on four sides of the entire body of frames, and partly the sixth, then my honey-

board is raised one-sixteenth of an inch, so they remain all winter.

"When thus prepared do you leave them on their summer stands?"

Some I do, some I do not, but think a well ventilated room the best.

"Why do you wrap them in cloths?"

To prevent all direct currents of air from striking the bees, and to prevent the frost from accumulating in the hive.

"Do you leave any ventilation at the bottom of the hive?"

As little as possible, there is enough at the top.

"What is the best you have ever done with a single hive in one season?"

I had one that gave me one swarm (artificially) and 293 lbs. of box honey. Another gave one swarm, and gave two cards of brood to a weak colony, and 722½ lbs. of extracted honey.

"But two queens did not supply all that force?"

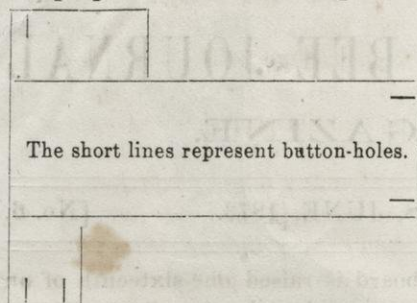
No. I built them up with brood very strong in March, from other colonies, after that they received no more help.

"What kind of bees were they?"

The three banded Italian.

"How do you generally prepare your wrappers for winter?"

I prepare them in this shape—



The short lines represent button-holes.

"Do you consider the Italian a distinct variety of the honey-bee?"

I consider the Italian or Lycurian bee as distinct and pure as any other variety.

"But do they not 'sport,' or some of their workers show blood of other varieties?"

This sporting (so called), is caused by mixture with other varieties, no sporting in the pure bee.

"What would you do in case you had a colony of bees in early spring, reduced to a mere handful of bees?"

I would go a few miles off and purchase a couple of colonies blacks, drive them out of their hives, kill their queens, mix them up and bring them home, and late in the evening I would open my weak colony and pour the blacks down on the frames and close up.

"But would they not kill your Italian queen?"

I never lost one when the operation was performed late in the evening, but when performed during the day I have.

"Why are the bees less apt to kill the queen in the evening than in the day time?"

In the evening, the bees in the hive have clustered more compact

than during the day, and the ones you put in are two tired and too much scared (the others too weak) to fight, and want to cluster and rest. They have found out their loss, and are willing to adopt the queen without ceremony.

"Why do you go to a distance to get bees?"

So as to bring them to a strange place, they will be more apt to be quiet and will not go back to their old home.

"Are you still going to experiment to find out the cause, and a cure for the bee disease?"

Friends, I see a broad field open for discovery, but I can not, I dare not enter there this season.

"Why not, we would all like to know more about the disease?"

My bees are too few, (one colony Italians, two of blacks), and I am pecuniarily unable to purchase more at present, but I will again enter the field of discovery as soon as I am (with bees) able.

"Then you would be getting out some patent?"

No, *all patents in apiculture* I consider a great drawback. They prevent many from entering the field of apiculture.

Leesburg, Ind., May 24, 1873.

Letter from Kelley's Island.

Our friend, Aaron Benedict, writes he arrived at the Island on the 21st of 5th month, found the apple trees just beginning to bloom, not a single white clover blossom to be seen—brought my nursing bees in boxes deprived of both queens and brood. When I present them eggs and larvæ from my breeding queens, they accept it readily and

commence immediately to build queen cells. Owing to the backwardness of the season, it will be some time yet before I can send out queens. As soon as I get my nuclei's formed, I shall have full colonies black bees and will establish one or more apiaries on main land for my surplus queens.

I predict a good season for bees and honey, although a little late. The Italians commenced swarming the 6th of 5th month, in Warren county, Ohio.

Address me at Bennington, Ohio, instead of Kelley's Island, as the Post Master will be apprised of my whereabouts at all times and the letters will reach me just as soon. I am very busy now, will send an article for next Journal.

AARON BENEDICT.

We publish the letter, for it contains useful hints from one of the best queen breeders in the United States.

That Proposition.

The April number of the old NATIONAL was duly received and contents fully digested. But there is one article it contains, that forcibly reminds us as being peculiar in many respects. And, would you believe us, Messrs. Editors, its perusal gave us "much joy," and we'll tell you why. You may remember that some few years ago, it was announced that a grand achievement had been wrought in the vast and multiplex field of American apiculture. You will all remember that we "old fogies" were stumbling along at a snail's space, quite content with producing 50 to 100 lbs. surplus honey, and doubling our colonies. Then,

if we wintered seven-eighths of our bees in prime order, our satisfaction was well nigh completed. But, lo, and behold! the times change, and men change with them. We are told that we live in an age of progress; that rapid advances are being made in the arts and sciences—that many mighty wonders are being accomplished—in fact, that the American people are leading the van in the world's progress. Of course it isn't at all consistent with "the times" in which we live, to do so little in apiculture, and straightway there arose in the western horizon "a mighty man of valor." Intrenching himself in the capital of the Hoosier State, he cracked the whip of scientific progress about our heels, beckoning us onward to explore the vast labyrinth of nature's mysteries. "Behold, the day of progress is at hand! The dawn of the buckeye (hive) day is upon us—why stand ye here idle all the day long? Come dotards, awake, and I'll show you how to increase one colony of bees to one hundred colonies in a single season. Yea, verily, and I'll tell you how to make each one of those one hundred colonies yield from 500 to 1000 pounds of honey at the same time. Moreover, I'll have it ILLUSTRATED for you at 'two dollars' per annum."

Men, and brethren, who could withstand such a vigorous onslaught as this? And what has been the result of such teaching as this? Here is the answer. "You have talked long and loud, and under your practices the bees have melted away like snow before a noonday sun." But these last promises, which shall tell us how to keep clear of the shoals

in future, are words that inspire us anew with new-born zeal—they are delicious sounds that fall upon the troubled ear, shedding a sweet halo of hope o'er the raging distracted mind. Then what joy to think it's not a delusion and snare, after all. I'll go straightway and buy me a swarm of bees. Let's see, they will increase to a hundred at any rate, if a good season, more. Then I'll get, at a *low* estimate, at least 50,000 pounds of honey. Oh, won't I "be gay and happy still." I can supply that great world-renowned, "excelsior" honey dealer of Chicago, who *buys* honey but *don't* return therefor any money.

In conclusion, we do most earnestly hope that friend Mitchell won't leave us in the dark any longer. By all means tell us *just how* to winter our "hundred" colonies, 'cause next year we want 'em to make our "fortin," and break down this wicked monopoly in honey. And for fear some one might charge us with blowing our own horn, by trying to establish a demand for queens, or "some sich," we'll just content ourselves with a very humble appellation that of being as yet, one of very many—a diminutive, unsophisticated, unbridled novice.

P.S.—Don't confound *us* with that Medina "gintleman," as he's in no-wise related to *us* in the slightest particular possible. A.

Red Pepper Station, Condiment E, Wolverinedom.

GOULD's cheese factory, in Hanover, Illinois, is now using 14,000 pounds of milk, daily, in making 225 pounds of butter, and 1,250 lbs. of cheese. He expects to increase the receipts to 20,000 lbs. per diem.

Bee Keeping for Farmers.

Some have adopted bee keeping as the business of life; and these have mostly attained a flattering success. Others engage in it as a pastime and amusement chiefly.

In these two classes are found, for the most part, the intelligent and progressive bee keepers of the country, and yet the pursuit belongs properly to the lesser industries of the farmers; and among these it should, perhaps, occupy the first place, both in attractiveness and profit.

To those who cultivate the soil, it affords a pleasant respite from the more arduous toils of the field; adds a new charm to the rural home, and prolongs into the gloom of winter the fragrance of summer flowers. To us, a farm without bees, seems as incomplete as a rural home without shrub or flowers to gladden the eye or cheer the heart. But though the bee keeping is "the poetry of rural life," it may be made a source of no inconsiderable profit as well.

Conducted with skill and care it is certain to yield a handsome increase to the yearly income. While some localities, abounding in honey-producing flowers, are better adapted to bee culture than others, yet a few hives, at least, may be kept with success in any region where agriculture will yield a livelihood. The chief obstacles to success are ignorance of the habits of the honey bee, and neglect of the wants of the apiary. The former of these requisites can only be supplied by the study of approved works on bee keeping, together with observation of the climate and resources of the bee

keepers' own neighborhood. As to the latter—those who are so confirmed in habits of neglectfulness, as to need more than this gentle hint, we leave to learn the lesson of care, by that certain failure which they so richly merit.

Apiculture has made great advances of late years. The intelligent bee keeper no longer consigns his favorites to a hollow log, or rude box, nor, what is even worse, to any of those absurd contrivances which have proved the ruin of thousands of happy colonies of bees, and provoked the disgust of their unfortunate owners. But providing himself with *some form* of movable comb hive, well constructed and having a sufficiently capacious brood chamber (or main apartment) and suitable arrangement for surplus honey, he enters upon the pursuit with fair prospect of success. Those who have once learned how to keep bees, will not soon abandon the pursuit.—

Journal of the Farm.

Faulkner's Report.

Mr. Wm. Faulkner furnishes the following report from the first of May, 1872, to May, 1873:

No colonies offered to swarm; surplus honey 3,000 lbs; new colonies set up July and Aug. 42; entered the winter with 140 colonies. Unfavorable weather in November destroyed the health of the bees and alarmed me very much, and being clearly satisfied a large percentage of the bees would die, I paid due attention to my own and only lost four colonies. There being no forage in the fall, I was only able to get seven out of fourteen surplus queens through the winter. One queen

died during the winter, and bees killed four, caused by opening the hive to feed them. I set up ten new colonies this spring. Last season could not be considered a honey season, and this spring is very unfavorable. A fine prospect for plenty of white clover.

WM. FAULKNER.

Vevay, Ind.

Exploring Bee-Dom.

If the beginner in apiculture has taken our advice, and begun to read up in relation to the nature and habits of the bee, the result will be a great curiosity to verify some of the wonders of the hive by actual inspection. It may be safely affirmed that if no such desire be felt, there is no call to bee keeping. You may be cut out for a gardener, an angler, a poultry fancier, or a sheep raiser, but you are not cut out for a bee keeper, unless reading on the subject fires you with a strong desire to see the inside of a hive.

With a movable frame hive this curiosity can easily be gratified, and a vast amount learned about these remarkable insects in a very short space of time. We will suppose that the reader, having determined to begin as a bee keeper, has purchased a colony in such a hive. It is bought in the early spring, when the risks of wintering are over, and brought from a sufficient distance (at least three miles off) to prevent the bees, from their memory of localities, going back to the old apiary. There stands the newly acquired treasure, in a spot chosen for the season, beneath some not overly thickly foliated shade or fruit tree, where it can have at least partial

protection from the fervor of the noonday summer sun. You have watched, at first at a respectable distance, and then somewhat nearer, the goings out and comings in of the busy little workers, during those early spring days which were warmer than usual. The only peculiarity about them that you have noticed has been that quite a number of them, on returning to the hive, have their thighs laden with a yellowish or reddish looking substance, concerning which you have said to yourself, with a sense of inward pleasure, "That's honey." Well, it is not honey, but it is something just as essential to the well-being of the colony, as we shall see presently. Your out-door observations increase the curiosity which has been awakened by your in-door readings. Now for its gratification. But be sure to follow the directions about to be given, whether you can see the wisdom of them or not.

Choose an hour before midday, when the weather is warm and pleasant, and the bees appear to be in a rollicking good humor, making the air resound with their musical humming. Put on the close fitting veil and sheepskin gauntlet. Get smoke of some kind, and gently blow a few puffs in at the entrance of the hive. Hark, and in a few seconds you will hear a peculiar buzzing, which you will by and by learn to recognize quite readily. It signals you that the smoke has taken effect. That's enough. Don't overdo it. Bees can be annoyed and angered by an overdose of smoke. Wait a few minutes. The smoke has created a slight panic in the hive, and the bees instinctively fly

to their chief treasure, the honey, and load themselves with it. In that state they are disposed to sting. A bee filled with honey is like an Englishman after dinner—very good natured. You may now proceed to open the hive, doing everything very gently and quietly, for the bees are as nervous as people who drink strong green tea thrice a day. The least sudden movement gives them a start and puts them on the alert. Having taken off the outer covering of the hive you come to the honey-board. This is fixed fast with propolis or bee glue. Bees are not loose in their habits. They want everything strong and solid, and so they gather and prepare a resinous material, which they spread on in a sort of viscid state, but which gets hard like sealing wax, and the point of a knife will usually loosen the honey-board in a moment. Now lift off the honey-board carefully and set it by the side of the hive. At this stage you will feel rather nervous most likely, especially if the bees should rush out at all, as they sometimes do. But keep quiet, take your time, blow a little smoke across the top of the hive, and down between the frames. This will still them. The frames are glued fast, as was the honey-board, and must be loosened in the same way. Be very careful in drawing out the first frame. Make an opening for it by gently pushing the frames on either side. Fix it as a rule not to crush a single bee if it can be avoided. Having thus drawn out a frame from about the center of the hive, begin to examine it. Of course the bees first attract your attention. Most of them, perhaps all that you see, if

it be early in the spring, will be the workers. They are undeveloped females. On them all the labors of the hive devolve.

Later in the season you will notice, on opening a hive, a proportion of larger bees. They are portly looking aldermanic insects, each with a jolly corporation of his own. There is no difficulty in identifying them. They are "the lazy fathers of the industrious hive." They perform no toils, and lead a life of pleasurable idleness.

If you look sharply you will perhaps be fortunate enough to find the queen. But she is modest and retiring, prone to hide in little knots of workers, and seems to take pains to elude observation; sometimes, however, she walks forth, with a slow and steady step, and with a sort of majestic air, which proclaims her "every inch a queen." Novices are very apt to mistake some drone more slender than his fellows, for the queen.

Her wings are short, her body long and tapering, and her movements peculiar.

As you proceed with your inspection, you will observe many cells containing a yellowish or reddish substance. This is pollen, the food of the young bees. You took it for honey as the workers were carrying it in, but it is not much like honey here in the cells.

It will strike you that the honeycomb is not all of the same size, and on careful observation, you will see there are two sizes of cells; the larger size is known as the drone comb, and the smaller as worker comb. The drones are raised in one, and the workers in the other.

Peering into these cells you will notice little things coiled up in them. These are the grub or larvæ. If you search narrowly you will see at the bottom of many of the cells, little white specks about the shape of rice grains. These are the unhatched eggs. They are all laid by the queen, who is the mother of the entire progeny. It is very interesting to note the egg, the newly hatched grub, and all the various sized grubs, up to those that look so big and fat that the cells can hardly hold them. You will notice also, many cells closed up, "sealed over," as bee keepers say. These contain the young brood in the last stage of development, and if you watch closely, you will see some of them who are mature, eating their way out of prisons, into that world in which they are to play such an active part.

This is a sufficiently long explanatory tour for the first, in the hitherto (to you) unknown realm of bee-dom. It has, to some extent, satisfied your curiosity. It has proved that you can handle bees without being injured. It has given you an insight into bee-life. It has opened to you a world of wonders, into which you will take many a journey, and, if you are a student of nature, you will exclaim often, as you behold the revelations of insect art and skill: "Great and marvelous are thy works, Lord God Almighty; in wisdom hast Thou made them all."—*Canada Farmer*.

In most places it costs more to keep cows in summer than in winter, because more land is required for green than dry feed.

Subscribe for the National Bee Journal.

SOUTHERN DEPARTMENT.

Something New.

A few weeks since I wrote you to send me a few sample copies of the old NATIONAL BEE JOURNAL, also to change my address from Old Virginia to this beautiful land of Texas, which was done promptly. I called this a beautiful land, and so it is, a land flowing with honey, but the people so benighted and behind the times in modern improvements in apiculture, that they can not see the beauty; do not know the profits, nor do they know how to take hold of this truly lucrative and pleasant business. They open their eyes in astonishment, when I tell them how many pounds of nice pure honey I can get, besides the increase of stocks, by artificial swarming, and in order to prove to them that it is not all talk on my part, I have purchased a few stands, and transferred them into movable frame hives, knowing full well the advantage of having bees in hives that can be handled without injury or hindrance to the bees in their labors, which is the great secret in successful bee keeping.

Now for the new discovery, at least to me. I am forty-five years old, and have kept bees for thirty years, and have never seen anything like what I will now try to describe. In transferring, I noticed something unusual about the feet and legs of the bees. On examining with a magnifying glass, I found what appeared to be wings of a yellow color about half the sixteenth of inch in length, marked like the wing with fibres running through the thin part. This growth of whatever it

may be, is shaped and proportioned like the wing, also. To the naked eye it resembles a bunch of fine moss, and retards the movement of the bees very much. This is not the case or condition of all, but most of them, I think about two-thirds. After gathering honey, I find they shed this substance, and it can be seen very plainly on the alighting board.

Now, Messrs Editors, I hope some one of the learned men of the East, West, North or South, will solve or help solve this mystery through the JOURNAL; give us all the light you can, gentlemen, and brothers in apiculture.

Find enclosed two dollars, for which send the National Bee Journal and Magazine, to John Mason, Hunt county, Texas. I will still work for the old Journal, and send you subscribers, for no man who keeps bees can afford to do without one, at least. Will move here soon, and intend to engage in bee culture as a business. Yours, as ever,

GRAHAM.

(From Phillip's Southern Farmer.

Honey.

THE USE OF HONEY AS A FOOD, AS A PRESERVER OF HEALTH AND AS A REMEDY IN SICKNESS.

(Concluded.)

Concerning the use or enjoyment of honey.

A known factor in the use of honey, especially as a medicine, is the art or manner of applying it.

Many suppose the quantity used will have the healing and beneficial effect on the human body, but in the reality only do themselves injury. As with all other things, so

here, too much is injurious. Through the inordinate consumption of this, although the purest of all plant productions, a surfeit and aversion* to honey will be produced, which will hinder its healing qualities.

One should use honey in the beginning only in small quantities, one or two teaspoonfuls; the best time, early in the morning immediately upon awakening, and just before going to sleep; but no rich supper must be eaten.

Should an aversion of honey be perceived, then it should be taken every alternate day; it may also be used with wheat bread, or with bread and butter, and used instead of sugar in sweetening food and drink.

When one in this manner has become accustomed to honey, he can gradually consume more and more of it, and thus receive the benefit of its wonderful health-giving qualities.

The various ways of utilizing honey.

Besides the use of honey as a food and medicine, it is used in various other manners.

From it is made mead, wine, vinegar, beer, brandy, and various kinds of cakes. It is much used in the apothecary, and is the basis of many cosmetics.

In Luthuania it is made into excellent mead, which is allowed to remain quite fully a year before becoming fully ripe. The Linden honey is used for this purpose, owing to its excellent aroma.

Simply by adding yeast to honey

you have honey beer, a product almost forgotten in Germany, but still used in Scotland, and very readily drunk, and which can be kept fresh and good-tasted for years.

Grafts can be preserved in honey for two months before using.

With the ancients, especially with the Romans, were all drinks prepared from honey, or mixed with it. I herewith give a few of the recipes.

Water honey (*hydromeli*), a species of wine drink, made by mixing honey with spring or rain water which has been allowed to stand for a long time. This is often given the sick.

Saltwater honey (*thalasomelli*), prepared by mixing sea-water, rain water, and honey. This is a pleasant, agreeable and slightly purgative drink.

Honey wine (*melitis*), prepared from moist honey and salt, and used as a medicine.

Water mead (*aqua mulsa*), prepared from long standing rain water and honey; a strengthening and cooling drink.

Mead (*mulsum*), made from old, pure wine and strained honey—a highly-prized drink, which is spoken of by the hundred years old Rumullius Pollio, he declaring it should not be absent from any table, and as being given out when the victories of the warriors were celebrated.

Honey vinegar (*oxmeli*), prepared from honey, old vinegar, sea salt, and sea-water. It is used for medicinal purposes.

Wine honey (*onomeli*), a drink prepared by mixing the juice of the best grapes with honey.

* Inordinate consumption of honey will produce burning sensation in the throat, cramp in the stomach, and colic.

CONCERNING GOOD HONEY.

Although bees are very industrious in gathering honey, it often happens that a late swarm, or in poor honey years, that the swarms cannot gather their full winter quota of honey. When this misfortune occurs, it is the duty of the bee-keeper to preserve his bees by feeding them with honey until the opening of the next honey harvest. This want of honey may also happen in favorable seasons, by taking from the bees too much honey.

How to feed bees is well known to every bee-keeper, and I shall confine myself entirely to the quality and condition of the honey.

Experience teaches us, that honey, when brought from a distance, even when pure and adulterated, is not so useful for feeding our bees as that gathered in our immediate neighborhood.

Uncapped honey ferments and sours speedily in the combs, and should the bees use much of such honey, they will inevitably suffer from dysentery.

Also the smoke and sulphur used in killing the bees has an injurious effect on the uncapped honey.

But feeding is not only necessary in years, poor in honey, but also in those rich in honey.

When the yield of honey dew is so great as literally to flow from the fir trees, the eagerness of the bees to gather in their treasures is so great that the extraction of the poison, for the poison bag, is imperfectly accomplished, and hence, in using this honey in winter, dysentery is produced.

Rich honey yielding years are in such situations, the most dangerous,

and must, therefore, be helped by feeding the honey produced from flowers.

From what has heretofore been said, we plainly see how necessary pure honey is for feeding bees, since through impure honey populous hives have been destroyed.

I have, therefore, every year set apart a portion of good honey gathered from flowers, rendered, as well as in comb, for the purpose of feeding my bees, which the bee-keeper can use with the greatest confidence.

SUNDRY MATTERS.

The greatest hindrance in using honey as a medicine, is the difficulty of procuring a pure article.

Honey obtained from the apothecary is generally well purified and well adapted for a sweetening material; but in the refining process, as before mentioned, it has lost more or less of its balsamic qualities, and hence, is less valuable as a medicine.

In purchasing, honey divides itself into these several species.

1. Breast Honey.—This is the purest virgin honey, *miel vierge*, taken from such neighborhoods where plants used for strengthening the chest grow, viz.: the Alps, Bohemia, etc. This honey is extracted from the combs, placed in glass jars, tightly covered and sealed. For consumption, lung diseases, etc., and to those suffering from piles, refined honey having especial curative properties.

2. Table Honey.—This species shows itself, especially on the table, as a sweetmeat, where it occupies the proper place, and is a much sought for, pleasant and agreeable food, since it acts so beneficially up-

on health, and especially as an after-dish, aids the digestion. This species of honey can be used as readily in the combs as in glasses. A second species of table honey is that which can be used as a substitute for sugar, in food and drink, is properly gathered and purified, has little of the foreign taste, and is the best for preserving fruits.

3. Food Honey.—This is either in the combs or rendered, and all who are required to feed their bees, should use the best.

I close my writing with the earnest wish that I may have done something toward the spread of the knowledge of the healing qualities of honey, and caused many to turn their attention to it, and through its use either to wholly cure themselves, or at least to alleviate their sufferings, or to strengthen their health, and finally express the heartfelt wish that honey may prove to others so wonderful in its health-giving qualities as it has to me.

Hints for the Apiary.

BY C. C. A.

We have taken upon ourselves, the task of giving directions in the UNION for the care and management of bees for each month of the year. Entitling our rudely constructed thoughts, "Hints for the Apiary."

In undertaking this we do not propose to instruct the practical apiarist, but the beginner, and those who wish to learn, that we may learn of each other. We do not call to our aid long years of experience, nor do we think it necessary in times like these, when instruction is so freely given, in the many jour-

nals, books, and papers of the day, as we hold that the apiarist can, by applying practice with the instruction given, get as much experience in five years as he could ten years ago with twenty years' experience, with the "box hive" and the "king bee."

We would suggest that the beekeepers take us to task if we fail to give the proper instructions. Let those who dissent from our views, make the Journals their medium. Also those making inquiries. Let us fill up the space allotted by the editor and have a live bee paper.

First, if you are not using the movable comb hive, transfer to one, if you do not take a bee paper, subscribe. Both of which can be done now, the first of the month. To succeed, both are necessary.

Examine all stocks three or four times during the month; all that are strong should have an empty worker comb placed in the brood nest, which can be done, by moving the frames apart, sufficient to admit a frame in the center of the brood. Weak colonies should be stimulated to breed by feeding them a small quantity of honey each evening. Do not give a colony much more comb than they can cover. A colony would be considered strong when the bees will cover two thousand square inches of comb (surface measure.)

See that all stocks have honey deposited for a "wet day." A strong colony is moth proof. Have hives all ready for swarms, as all good colonies swarm by the twentieth of the month. We do not advise artificial swarming for beginners; learn to take care of what you have, be-

fore you undertake to increase more than naturally.

To keep swarms in hives, take a comb of brood from the parent hive and place it in the new hive; bees will seldom leave for the woods when there is brood in the hive; keep the hive cool and shading. We cannot give minute directions for swarming, for the want of space. Place the new swarm on its stand as soon as hived. It will materially assist the swarm, if you can give it a few empty combs; if you have not enough to fill the hive, alternate with empty frames, and the new comb will be built straight. If you have not the empty combs, examine the hive in three or four days, and correct comb building that the combs may be built straight.

Owing to the great loss of bees the past two winters, there must be a great amount of surplus comb in this State, and it becomes the duty of every bee-keeper to save all he can, as it is worth one dollar a pound. With the extractor, this comb can be made to double the quantity of surplus honey gathered. To save this comb, first hang it in a dry place that it may dry out; then to prevent the moth from destroying it, place it in a box, or some suitable place, and close up tight; do not let the combs touch each other. Once a week, or as often as is necessary, burn sulphur in the box, (of course the sulphur should be in a vessel of some kind to prevent setting things on fire) to kill the moth worm.

Have your extractor of boxes ready, for we must make hay while the sun shines, and as our great staple for honey in Minnesota, is the

baswood, it becomes necessary to be ready for July, both in bees and tools to work with. We have a plan for a honey box (which needs an engraving to explain) which the bees will work in as readily as in any part of the hive, no patent on it that we know of. We have none for sale, as we have no axe to grind, but we will try to explain next month.

Italian Bees.

In march last, we purchased one stand of the Italians. They were received in good condition, though brought through by railroad and team—fifty-five miles by the latter conveyance in a common lumber wagon and over a rough road. The swarm was a light one, as we found on examination, both in numbers and stores, a condition which promised no very flattering success, on the start at least. We determined to give them a fair trial with our native bees, and among other things to test their honesty. The hive was placed upon a stand between two native swarms and distant from each other about twenty feet—one a very strong colony, and the other a very weak one. Early in June, the Italians gave out a very heavy swarm in the natural way, which was immediately transferred from the bush to a Langstroth hive. Inside of twenty days subsequent, a second swarm came out, and which was placed in a box hive, fourteen inches square in the clear, filled with movable comb frames. Early in August, four full frames of honey were removed from the first new swarm, and their places supplied with empty ones, and at the same

time, the six supers (extra boxes) put in place. At the close of the season, the main body of the hive and three of the extra boxes were full, and considerable progress made in the other three. The swarm which came out last filled every frame in the hive, plump full—leaving between some of the combs scarcely space enough for a single bee to pass. We have never before seen combs packed so closely.

So much for the Italians, while we have no increase to report from either of the swarms of the native bees. Nor do we think the stronger swarm of the two stored so much honey, or were so strong in numbers at the time we housed them for the winter, as were either of the two Italian colonies. After what appears to us to be a fair trial of the two kinds of bees, side by side, we are forced to the conclusion that of two colonies of equal size, the Italians will accomplish a vast deal more than the natives. We find the former much more active and hardy than the latter. They are out at an earlier hour in the morning and work later at night. We have repeatedly visited the hives before sunrise and found the Italians moving in large force, while not a native was to be seen about.

The Italians are charged with possessing an insatiable appetite for marauding, but so far as our observation goes, their propensities for robbing are not more manifest than those of the black bee. We watched them very closely, and the condition of other swarms from the time of their introduction to the close of the season, without discovering any molestation of their neighbors. So

far, we do not think the Italian bee has been overrated. However, we will see whether another season's experience will prevent a different phase. We would advise no one to dabble with queen-seed alone for the purpose of improving their native swarms, because we do not believe that one person out of fifty would meet with success. Have a full swarm or none.—*Iowa Homestead.*

A Great Colony of Wild Bees.

In a chamber of a lofty cliff of the Cumberland Table Land, looking down upon the head waters of the Wolf river, in this county, (Fentress, Tenn.) wild bees have made their home. Thirty feet below its jutting edge, and nearly a hundred feet above the ragged masses of rock piled at its base, the entrance to their cavern hive is inaccessible without more labor and expense than are within the enterprise of the bee hunters of this region. Preserved by this inaccessibility, the little creatures have for many years perpetuated their generations in untold numbers, and stored their treasures sweet in unmeasured quantities. Vast those stores must be, for on any fair day the bees throng from the door of their hive, about about six inches in diameter, in solid column, casting a black shadow upon the face of the cliff as thick as four or five hives swarming at once; and old Mr. Pultz—the “old” in his case meaning eighty-three years, and whom I found carrying in a great back log—told me that he had known the colony since before the war 1812, and that it was apparently as strong when discovered as now, and in all these years it is rea-



INDIANA STATE EXPOSITION BUILDING.—See Page 182.

sonable to presume that their stores often answered in a hoarser note, have been increasing. Other similar colonies have been found from time to time, but their rocky fastnesses not being so well chosen, all except this have yielded to siege; while these have gathered, year by year, their harvests from tulip, and linden, tree and clover and honey dew, unmolested during the lives of at least two ordinary generations of men. How the peace is kept among the subjects of a dozen different queens (for certainly not less number can produce brood enough to keep the countless swarms of workers full,) is a question that must be solved by more learned beeologists than I. Many a costly bee palace has failed within my knowledge, because queen bees find it as difficult to live in harmony in the same hive as queens of greater pretensions to intelligence do to abide peacefully in the same place together.—C. C. Schench, in *Country Gentleman*.

Queen Bees.

A stock of bees just before casting a first swarm usually constructs queen cells. If the swarm, with the old queen makes its exit, when the queen cells are nearly all sealed over, it will be eight or nine days before a second swarm can issue. If the flowers continue to yield abundantly, and the parent stock be still strong in numbers, the worker bees will cluster over the queen cells and not allow the first emerging queen to destroy her yet imprisoned sisters. At this she seems enraged and utters a peculiar sound like the "peep," "peep" of young chickens, though on a very fine key. This is

often answered in a hoarser note, from the eldest of the still enclosed queens.

The senior queen still continues "pipping," as it is called, for a day or two, meanwhile making every effort, to engage in "mortal combat" her royal rivals. Being frustrated in every attempt, she finally leaves the hive in a "huff," accompanied by a considerable body of workers. It appears from this fact that the immediate cause of after-swarms springs from a desire to avoid a quarrel among the "woman folks." The piping can not be mistaken for any other sound given by the bees, and may always be heard on the morning or evening preceeding the issue of any swarm after the first. If a second swarm is to issue, piping will usually be heard by holding the ear close to the hive, on the morning or evening of the eighth or ninth day from the departure of the first swarm; and, for third swarms, on the evening or morning after the issue of the second. If it is not heard by the fourteenth day, from the time the first swarm left, no after-swarm need be expected. In good seasons, or in favored localities, second swarms, if early, will generally lay up sufficient stores for winter, and are valuable on account of having vigorous young queens. But, if in this latitude after-swarms are cast the old stock is often greatly weakened, and consequently more exposed to the inroads of moth, besides seldom storing surplus honey after swarming. The swarms also often fail to secure stores for winter, and have to be broken up in the fall. A safer and more profitable course is to allow but one swarm to issue

from a stock the same season. With the movable-comb hives, the issue of the after-swarms is easily and surely prevented, by opening the hive in five or six days after the first swarm leaves, and taking away all the queen cells but one. By this course, we may keep all our stocks, both old and new, strong and prosperous. But with the common hive, probably the best that can be done is to join two or more second swarms together, as they are usually half the size of the first swarms. All swarms after the second should, after taking away their queens, be returned to the stocks whence they issued.

As third swarms are usually attended by several queens, it saves trouble to hive the swarm and let it stand by the stock until the next morning, when all but one of the queens will be killed and the remaining queen may be found by jarring the bees on a sheet.

When after-swarms are expected, the apiary must be closely watched. First swarms seldom issue earlier than nine o'clock or later than three, and usually choose a fine clear day. Not so with after-swarms. They are liable to issue at almost any time during the day, and often in cloudy weather. They are apt to go farther from the hive to cluster than first swarms, and, being very small, are not always found unless seen upon the wing. Second swarms ordinarily issue in from eight to twelve days from the first; and after-swarms seldom ever issue after the eighteenth day, unless a "buck-wheat swarm" is thrown off in August, which is an unusual occurrence.

If the honey harvest be cut short

by drouth or wet weather after the issue of the first swarm, or when the stock is weak in bees or brood, the workers allow the first emerging queen to destroy all the other young queens. She accomplishes this by biting open the side of each cell near its base, and dispatching the unfortunate inmate with her sting. She is yet incompetent for the maternal duty, and must leave the hive to meet the drones in the air for the purpose of fertilization. This once accomplished, the workers, awaiting her safe return, greet her with a reverence and affection never shown before. They hasten to prepare cells to receive their tiny eggs, and seem to realize that on her the existence and perpetuation of the family depends. There is also a perceptible change in the queen's form, her abdomen being a little swollen and somewhat lengthened, but not as much as at the height of the breeding season. She now remains the fruitful mother of the prosperous and happy colony. H. A. K.

In Copenhagen, Denmark, butter is shipped in hermetically sealed cans. The cans are lined inside with wood saturated with brine, and when filled, are soldered up. By this means the butter is protected against the action of air and heat, and preserved for an indefinite time, as sweet as when first packed. The cans vary in size up to twenty-eight pounds; those of four or five lbs. are preferred.

Four hundred and seventy million pounds of butter were made in this country last year.

Subscribe for the National Bee Journal.

LADIES' DEPARTMENT.

To A Bee.

BY MARIA S. LADD.

I marvel much, O, bee!
 At thy strange industry,
 Throughout the languid hours,
 By roadside, or in bowers—
 Heat seeming naught to thee—
 Thou sip'st the sweet from flowers.
 With rancor in thy tone
 Perhaps thou meetest a drone,
 Whether a bee or man,
 Exact to nature's plan
 Thou, almost, art alone,
 And surely lead'st the van.
 Tireless thy gauzy wing,
 O grave and busy thing!
 Lessons enough we learn
 From thee, and from the stern
 Experience of thy sting,
 We oft unwisely earn.
 I, who in childish days,
 When listening to thy praise,
 Oft wished quite merrily
 That I a bee could be—
 Now think in sadder phrase
 'Tis well to be a bee.

The Old Woman's Story.

Good morning, Mr. Editor, or I should say Mrs. Editor, how do you do, and how are your bees doing?

Good morning, Mrs. Thompson, be seated. I wonder what has come o'er the spirit of your dream, that your face should look so bright and cheerful, the last time I saw you you looked so blue, when you was gone I felt as if I had been to a funeral for half a day afterwards. So much for sympathy, you see.

Well, I am sure I felt as I looked then, but now I have come to thank you for helping me dispel the gloom that overshadowed my feelings at that time, after the loss of my beau-

tiful pets, for they were beautiful bees that I got of you last summer, every worker bee was so evenly striped, the drones too, had yellow bands like workers, they multiplied so fast that I felt rich when I put them into the cellar. I had bought an extractor and thrown out more honey than a Hosmer ever thought of doing. I had taken my honey to market and sold so many dollars worth, bought a new carpet for the parlor, a center table and sett of chairs, put the old parlor furniture in the best bed room, got a new bedstead for that. All this was done in the minds eye, you know, and the worst of it all was, I confided my thoughts to my old man and the boys, and they quite agreed with me then; but the scene changed when I opened my hives this spring and found them all dead, and those beautiful bees, too, that I had so much prided in. I tell you I did feel blue and funeral like when I came to see you last for counsel. They, the old man and the boys, had their fun over mother getting rich so fast. But the oldest said, "Mother, don't give it up yet, I am going to Indianapolis, and you go with me and see what that woman says that you bought the bees of, maybe she will buy the wax, now you've got no bees." And I am glad I did so before I melted up the comb. I had no idea of buying more bees when I started to see you, but to plague me, father said, just before we left, "now mother if you buy any more bees don't sell the honey till you get it, or as the old saying is, never count your chickens till they are hatched." So he laughed and shook his head. I did not feel like laughing for my

part, I could think of nothing but the loss of my favorites. So far for the funeral, now for the bright looks you speak of. You advised me to buy one more Italian stock, you know, and some black bees, give me the reason that I could get them cheaper, and Italianize after awhile. You said the comb was worth nearly as much as a stand of bees in a weak condition, so you promised to send me a good stand of bees soon as possible. And going home Hiram, that is the name of the son that was with me, said, "Mother when you get home you write to that woman and tell her that you will take two stands of bees, I will pay for one of them, I believe she is right, and if one is good two is better. Don't say anything about it till they come, and if this season proves to be as good as she thinks it will, you will be able to count chickens yet."

The bees came just as you said, and didn't father and the boys stare tho'. I done just as you told me, took a dry goods box and placed near my hives, took the combs out and scraped the frames one by one, washed first with soft water, then with salt and water, set the frames in the box bottom side up, as you said, then got an old pot and put ashes in the bottom of it, then put hot coals on that, placed it in the center of the box, sprinkled sulphur on the coals and covered the top of the box with a thick blanket and left it. All the while father and the boys were looking at me like so many lunatics, and I do believe they thought I was crazy. After washing my hives with salt and water next day, I divided the bees and they done wonderfully well, by

the time the queen cells were ready to transfer to other hives, my bees were strong enough to divide again, and actually from those two stands of bees I got in April at fifteen dollars each, thirty dollars.

I have sold five stands for twenty dollars each, and one queen for five dollars. Just one hundred and five dollars, and not quite the middle of June yet. I think that is hatching chickens pretty fast. Now I have got six stands left, and my two first stocks besides. Mind you, I still keep them. My plan now is to keep them all strong and get as much honey as possible, that I intend to take to the Indianapolis Exposition, and if any one there can make a better show from one seasons work, why I will let them have the premium. That is all.

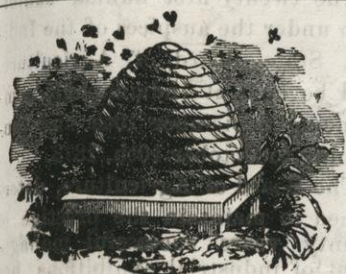
I want an extractor, and my old man says that he will give up beat, for he had no idea that I could ever make ten cents with them, and he is going to buy some of me. I bought five stands of black bees and I am going to sell him those when they are Italianized. Now so much for bright looks, for it does make a body feel good to succeed in anything they undertake, and I believe more especially in bee keeping.

Now I think I shall pause to take breath, then If you have time we will look at your bees.

Mrs. Thompson I assure you I am as glad of your success as you can be, I think there is no doubt but you will succeed, for with past experience and your knowledge in the business, you will be able to avoid, in a great measure, the dangers caused by the long cold winters, and poor honey gathered in the fall.

(To be continued.)

EDITOR'S TABLE.



INDIANAPOLIS, JUNE 1873.

IN answer to letters from our numerous correspondents who are just entering the field of apiculture, we give a short lesson on transferring bees from box to movable comb hives. During the season of honey gathering, the beginner may safely undertake the operation, as the bees will promptly fasten the combs and oftentimes are more prosperous than before. If they have cast a swarm it is not safe to transfer for at least three weeks, by that time the young queen becomes fertile, then there is no danger. First prepare a small box, one that will fit the hive you intend to transfer from, take a roll of cotton rags, light them, then smoke at the entrance a little and shut them up. While they are filling themselves, get a kitchen table and put it in a shady place near the hive, fold a sheet in four, tack it firmly to the table, get a sharp knife, hammer, tacks, chisel, basin of water, and transferring knife; now turn the hive upside down, place the box you have prepared to receive your bees on the bottom of the hive, then drum sharply on the sides of the hive, this will cause the bees to run up in the drumming box.

Now while the bees are going up, take the frames from the hive and nail thin strips of wood, or some prefer rattan, such as is used to bottom chairs, nail two such strips across one side of the frames; by this time the bees have gone up into the box. Now take them off and set them where the old hive stood, remove the old hive near the table, now take the chisel and pry one side off, cut the comb free from the top and sides of the hive, remove the first sheet of comb, which is most likely filled with honey, take the next, and if brood, place carefully on the sheet, lay the frame on it and mark the size, cut and put it in the frame, then nail the strips on the other side of frame (be sure the comb is right side up always); take care of the brood first and put it in the center of the hive, then take the best honey comb and fill the rest of the frames. When this is done place the hive on the old stand, spread a sheet in front and shake the bees gently on the sheet, and your work is done, for they will find the way home without any trouble.

Much might be said on this subject, but space will not permit. Hoping that some may be benefitted with what has been said, we now announce to our friends visiting Indianapolis, that we have removed our office to the old place, on the corner of Tennessee and St. Clair Sts, for the purpose of keeping on hand specimens of the bees and queens we have for sale, at prices to suit the times and purchasers. Never before, at this early date, have we offered Italian bees, full stocks, for fifteen dollars each, and pure queens, from our own apiary, for three dol-

lars each. But in consideration of the many who have lost their bees the past winter, we offer them at that price, hoping that they, as well as we, will be benefitted thereby.

HAVING, at the request of many of our Southern friends, determined to establish an apiary of large dimensions in the beautiful land of Florida, that we may be enabled to supply the increasing demand for Italian bees and queens, having the advantage of climate, thereby enabling us to raise and even ship queens before the season begins in the North. Mr. Atkinson, who came here from the South, knows well the advantages of the southern States for raising queens. He has also been traveling in the States of Tennessee, Alabama, Georgia and Florida, for the last nine months, but he gives the palm to the last named State, for beauty of country, and delightful climate, and further says that the honey is of excellent quality, and gathered in great quantity by the native bee. What, then, will the Italian do, and where will its labor cease?

We have also determined, in view of locating in Florida, to sell the unsold territory of the Northern States in the Queen Bee Hive and Honey Extractor, for just half-price. Persons wishing to purchase territory, will do well to address us immediately, as our offer will be withdrawn after October next.

We are still offering the JOURNAL and one Italian queen for four dollars, with work on bee culture. Send in your names, for we now have queens on hand. See our clubbing rates.

Indiana State Fair and Exposition.

The twenty-first annual exhibition under the auspices of the Indiana State Board of Agriculture, will be held at Indianapolis, commencing September 10th, and continuing to October 10th, 1873.

The Board of Agriculture, determined to maintain the prestige of twenty years' successful management of industrial exhibitions, has decided to combine the more modern plan of exposition with the show of live stock and trial of agricultural implements, believing thereby to greatly enhance the benefits arising from such exposition, to both exhibitors and visitors.

The elegant and spacious new brick buildings, now being erected at great cost on the fair grounds, will afford ample space for the display of articles to the best advantage. See cut on page 176.

MERRITT & COUGHLIN, WOOLEN FACTORY,

West end of Washington St., south side,

INDIANAPOLIS, IND.,

MANUFACTURE

**JEANS,
CASSIMERES,
TWEEDS,
SATINETTS,
FLANNELS,
REPELLANTS,
STOCKING YARNS,
BLANKETS, &c.**

We are now Retailing these Goods at
Wholesale Prices.

Buy your Goods at our Factory and
Save 30 Per Cent.

250,000 LBS. WOOL WANTED

For which we will pay the HIGHEST
MARKET PRICE in cash or goods.

**Don't sell your wool until you have
seen us.**

CHOICE QUEENS, FOR 1873.



My prices for Italian queens for the coming season, will be as follows:

For Warranted Pure Queens.

1 queen.....	\$2 50
3 " each.....	2 25
6 " and upwards, each.....	2 00

Tested Pure Queens.

For 1 Tested Pure Queen.....	\$3 50
3 " each.....	3 25
6 and upwards, each.....	3 00

Queens will be bred from none but the choicest stock; and no drones will be allowed to hatch except from the purest mothers. Should any warranted queens prove impure, they will be replaced.

Orders will be filled in rotation, therefore, the sooner they are sent in the sooner the queen will be received. Queens will be sent by express or mail, as I may deem safest at the time of shipment. In ordering, give plainly the name of express and post office, if different from each other. Always be sure to give the county and State in every letter.

How to Send Money.

Small sums of money may be sent in registered letters. Larger sums by post office order on Painesville, O., office. All letters answered on the same day that they are received, so that none are forgotten.

Bee Feeders.

I have invented a bee feeder, which for convenience in filling and handling, I think can not be surpassed. Samples, holding 3½ lbs., will be sent by mail, postage paid, for 50 cents each. Per dozen, by express, not pre-paid, \$3.00. Address all orders to

E. M. JOHNSON,
Mentor, Lake Co., O.

HOOVER & BARTHE,

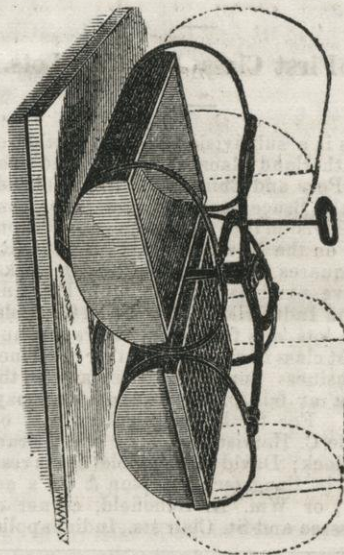
Dealers in

PURE ITALIAN QUEENS AND BEES.

All kinds of Aparian Supplies on hand. Also A. J. Hoover owner of the State of Pennsylvania, will act as agent for the Celebrated Queen Bee Hive, Pat. by Thos. Atkinson, also the Extractor and National Bee Journal, for the Eastern and Middle States. For information address

HOOVER & BARTHE,
Plymouth, Pa

THE ATKINSON



HONEY EXTRACTOR.

This machine is the most simple, cheap and durable that has come before the public. It will empty large combs or a number of small pieces can be laid on at a time. It works very easy, as the whole weight revolves on a pivot. The principles applied in this machine are the simplest in nature, being the combination of gravitation with centrifugal force.

PRICE, \$8 00.

Address,

ATKINSON & CO.,

National Bee Journal,

INDIANAPOLIS, IND.

I dont want anything better for me.

A. K. Brown, St. Louis, Mo.

I am well pleased with the extractor. For simplicity and ease of management, it could not be improved.

A. S. PORTER, Ohio.

It is all that a man can desire for a a honey extractor, and only eight dollars.

J. FINLEY, Tenn.

SCHOFIELD, HARRISON & CO.'S

ADDITION TO INDIANAPOLIS.

232 First Class Building Lots.

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

FOR SALE AND EXCHANGE.**Farm Lands,
Improved and Unimproved,**

In the following States:

INDIANA,

ILLINOIS,

MISSOURI,

IOWA, and

TENNESSEE.

Also for sale or trade,

CITY PROPERTY.W. A. SCHOFIELD,
National Bee Journal Office.**TO ADVERTISERS.**

Everybody having property to sell or exchange, should advertise in the
NATIONAL BEE JOURNAL.

Having a large circulation throughout the Union renders it one of the best advertising mediums through which to reach the people.

BEST THING IN THE WEST!!**ATCHISON, TOPEKA & SANTA FE R. R.
Lands!****Three Million Acres**

Situated in and near the Arkansas Valley, the Finest Portion of Kansas.

Eleven years' credit. Seven per cent. Interest. 22½ per cent. reduction to settlers who improve.

A FREE PASS TO LAND BUYERS.

THE FACTS about this Grant are—Low Prices, Long Credit, and a Rebate to settlers of nearly one fourth; a Rich Soil, and Splendid Climate; short and mild Winters; early planting, and no wintering of Stock; plenty of Rainfall, and just at the right season; Coal, stone and brick on the line; Cheap Rates on Lumber, Coal, &c.; no land owned by Speculators; Homesteads and Pre-emptions now abundant; a first-class Railroad on the line of a great Through Route; Products will pay for land Improvements.

It is the best opportunity ever offered to the public, through the recent completion of the Road.

A. E. TOUZALIN,
Manager Land Department,
Or W. A. SCHOFIELD, | Topeka, Kan.
Indianapolis, Ind.

ARKANSAS VALLEY.**FARMERS,**

Or others going south-west to enter lands in the beautiful Arkansas Valley, through which runs the great

**Atchison, Topeka & Santa Fe
RAILROAD,**

will get all the necessary information by addressing

W. A. SCHOFIELD,
Indianapolis, Ind., Agent.

Mr. S. is about to get up a grand excursion to come off sometime in August; due notice of which will be given through the NATIONAL BEE JOURNAL and other papers. See Railroad advertisement on this page.

THE LADIES', OR, QUEEN BEE HIVE.

THE UNDERSIGNED HAS ON HAND FOR SALE, AT THIS OFFICE, THE far famed LADIES' HIVE, (better known as the Queen Bee Hive,) made of the best material, well painted, and put up for shipping for the sum of Three Dollars each. Large or small orders filled at that price.

Our rapidly increasing business enables us to offer to Bee keepers a Hive well adapted to all persons and changes of climates, and with many advantages over high priced Hives.

Also, Honey Extractors, Honey Trowels, and Clover Seed for sale.
Please send stamp for information to

Mrs. T. ATKINSON,

Editress National Bee Journal, Tilford's Building, Indianapolis, Ind.

EXTRACTS FROM LETTERS RECOMMENDING THE QUEEN BEE HIVE.

Mrs. T. Atkinson, Indianapolis, Indiana:

ESTEEMED FRIEND:—I have used thy Hive now three years, and it gives me pleasure to say to thee that thy Hive is all thee recommend it to be, and I would cheerfully give information to its superior qualities to any one wishing to learn.

Truly thy friend, JENNY MERRIT, Milton, Wayne Co., Ind.

My Dear Mrs. Atkinson, Indianapolis, Ind.

Having recommended your Hive to many of my friends, although at present I am not in the bee business, I will still recommend it to all, and to lady bee keepers especially. Having closely observed the difference in the working of the many different hives I have had in use, would say without the least hesitation, the Queen Hive is the best for ease of management, and economy of time, the last of which I consider of great importance to bee keepers. Will call at your office in a few days, with a lady friend, who is going extensively into the bee business. Excuse this note.

From your friend, KATE BEDFORD, Indianapolis, Ind.

Mrs. T. Atkinson, Editress National Bee Journal, Indianapolis, Ind:

DEAR MADAM:—Please send me a sample of the last improved Queen Bee Hive. I have been using it for the last two years, and like it better all the time; in fact, I would not look at any other.

SAMUEL N. REPROGLE, Hagerstown, Wayne Co., Ind.

Mrs. T. Atkinson, Indianapolis, Ind:

DEAR MADAM:—The improved Queen Bee Hive arrived here in good time, right side up with care. I am really astonished at the improvement. I thought it was perfect before, but this far exceeds in simplicity. I have used it for three years, and find, aside from the ease with which we can handle our bees, it is the best for summer and wintering I have ever owned, and the name of them are legend.

With respect, J. W. KIMBERLAND, Oakland, Ind.

Mrs. T. Atkinson, Editress National Bee Journal:

DEAR MADAM:—The Queen is ahead of anything yet, notwithstanding I have some of the latest so-called improved hives of the age.

Very truly, ALBERT TALBERT, Shelbyville, Shelby Co., Ind.

SCHOFIELD, KING & Co.—DEAR SIR:—Please send me a good Extractor, one that you can recommend. I notice in the JOURNAL you advertise the Atkinson Extractor; if it is one-half as good as the Queen Bee Hive, patented by Thos. Atkinson, send it along. I have used his Hive for three years, and think it has no equal.

GEO. W. GREEN, P. M., English Lake, Starke Co., Ind.

Thee may add my name to the list. I know it is the best Hive I have ever used, and I have kept bees for forty years. W. A. SCHOFIELD.

PUBLISHERS' DEPARTMENT.

Advertising Rates.

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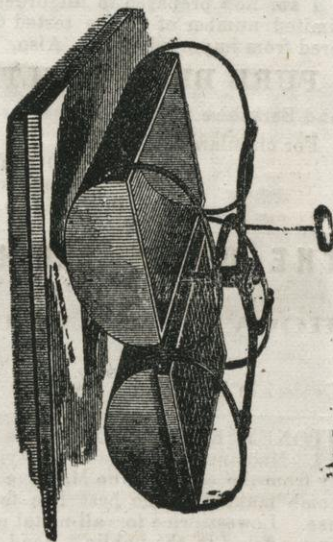
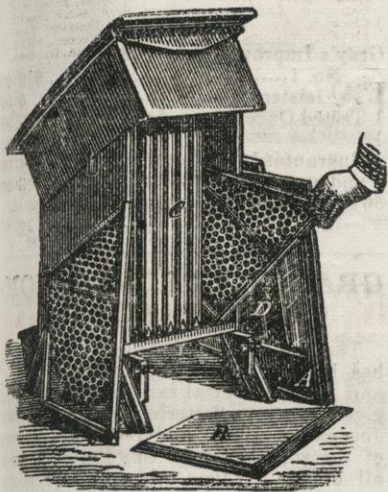
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