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Vol. V.

No. 5.

NATIONAL

BEE JOURNAL



A MONTHLY MAGAZINE,
DEVOTED EXCLUSIVELY TO BEE CULTURE.

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

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MAY, 1874.

DES MOINES, IOWA:
HOMESTEAD AND WESTERN FARM JOURNAL PRINT,
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NATIONAL BEE JOURNAL

DEVOTED EXCLUSIVELY TO BEE CULTURE.

VOL. V.

MAY, 1874.

No. V.



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.

FACTS AND FANCIES.

Perhaps in no other department of science is dreamy speculation and visionary fancy more common than in that of apiculture. Though eminently practical in the treatment of the great problems which it has been called on to solve,—not only in the affairs of every-day life, but in the arts and sciences as well,—the Yankee mind is, nevertheless, largely tinged with a speculative and theoretical spirit. The great law of compensation holds good everywhere; and, while those engaged in other departments of rural industry may have been characteristically practical, it seems to have been reserved for American apiarians to embody in their ranks a vast number of "visionary theorists." A careful perusal of our periodicals "devoted to bee culture" abundantly verifies this, and we have sometimes entertained a thought akin to that expressed by one of our ablest apiarians, that the prevalent methods of apistical management were the embodiment of empiricism. Much of our apistical literature is certainly incongruous, not to say solecistic,

—a travesty of the very name of science.

Doubtless some captious critic will, as he peruses our prelude, characterize us as a frigid, unsympathetic being, devoid of ideality, and incapable of appreciating the beauties of the ideal. Let us see:

We suppose it to be the chief aim of periodicals devoted to the practical vocations of life to instruct. To accomplish this end in the best and most satisfactory manner may require that instruction be blended with amusement. We certainly do not believe that our apistical or agricultural literature must of necessity be shorn of all embellishment, and therefore be dry, dull, and uninteresting. Indeed, we feel certain that of any two given articles of equal merit, in point of practicalness, one will make the deeper impression, and, consequently, accomplish the greater good that is the most entertaining. We might cite our readers to many examples that would confirm our position, but space forbids.

While we would not ignore the benefits to be derived from contemplating the ideal, we heartily protest against its being palmed off upon an "unsuspecting public" for the real. This is, as we think, the bane of our apicultural literature. Whoever attentively peruses our various bee journals cannot fail to note the incongruities and conflicting statements they contain. This is largely due to the practice of many writers of giving theory for practical facts.

We have been moved to indite the foregoing not only from complaints of many correspondents, who have oft-times been led astray by the recommendations of others, but the perusal of some fancy facts (!) we recently met with in one of our journals.

In giving directions for the management of the apiary, it was stated as an indisputable fact that to avoid loss in removing bees from the winter repository each hive must occupy the same position it did the previous season. Great stress was placed upon this point, the writer devoting a lengthy article to its demonstration. After we had concluded the perusal of the article in question, we paused a moment to soliloquize somewhat after the following fashion: "Bees are, indeed, very remarkable creatures; but of the discoveries that have been made in this department of natural history this transcends them all in point of extensive research and value of results attained, casting, as it does, the investigations of Huber, Dzierzon, and Berlepsch, Langstroth, Quinby, and Mrs. Tupper far (!) into the shade. We recommend (?) this writer to scientific associations everywhere, as being eminently worthy of all the honors within their power to bestow." But, seriously, what are the facts in the case?

Much has been said about the loss of bees resulting from changing their location. We have moved bees every month in the year, over and over again, at distances varying from a foot to forty miles, and have never lost a single bee, so far as we know, from changing their location. We always make it a point to have our hives occupy a different stand each succeeding season, and "nary" a bee of ours ever objects. If, for any reason, we wish to move hives a short distance during the working season, we have no difficulty whatever in inducing them to accept "the situation." In 1871 we had occasion to move a few swarms a short distance, in basswood time. Now, any practical apiarian well

knows this to be the most difficult season of the year to move bees without loss from the above cause. Here's the way we accomplished the job: After their day's work was finished, and they were contentedly humming in the prospect of augmenting their honeyed treasures on the morrow, we closed the hives, that no bees might escape, and carried them to their new stands, taking particular pains to acquaint the bees with the fact that 'something was up.' We left the hives closed until 10 o'clock the next day, giving ample ventilation, when the entrance were opened, and the bees, that were making desperate efforts to escape, were driven back to their combs with smoke. We smoked them until they had filled their "jackets" with honey, when they were left to the "even tenor of their ways." The result was that, before night, our removed swarms were doing their very best at "honey-gathering rapidly." In spring we move bees, after having been confined to the hives a few days by cool weather, without a thought of their objecting—even our most obdurate Italian.

Well, there—our allotted space is filled, and we've said nothing about a dozen other fancy facts (!) which we intended to ventilate.

In conclusion: Why will people persist in "writing for the papers" about things they know nothing of practically? If they must get into print to gratify ambition or vanity, why not select some theme in the elucidation of which their pens may revel in the realms of fancy without detriment to publisher or reader? An honest, straight-forward statement of facts is ever welcome to all lovers of scientific truth, even if it lack embellishment of dress or a classic style; but theory, however finely spun, when palmed off for facts, is worse than valueless, for, while it detracts from instead of augmenting the beauty and value of science, it also leads the inexperienced astray, involving them in

failure and disappointment. That all who contribute to our apicultural literature may henceforth ever strive to give facts as such, laboring for the best interests of all engaged in apistical pursuits, is the sincere, ardent wish of

HERBERT A. BURCH.

South Haven, Mich.

“NOVICE.”

Will you allow us to thank S. W. Stevens for his very kind mention of the trifling idea he says we gave him on entrances? We certainly should not have thought of his having taken the idea from the Simplicity hive, although it is true we studied over a simple entrance many a day—aye, and night, too, before we thought of one that could be enlarged and diminished without leaving any openings in the hive when used for an upper story.

Of course, 'tis a pleasure to know that we have aided any one, and our ideas are freely tendered to the public, if they possess any value. We think it has not been intended—at least not many times—but it has often happened that the very devices we have labored most over have been appropriated, without even a “thank you,” and sometimes the very article in which they were given as original has severely censured our short-comings in some other respect.

We like the plan of friend S's stand and entrance very much, especially the idea of allowing the bees, during the busy season, to alight directly on the frames, thus saving them much travel “on foot.” With our Simplicity pushed well forward, we have nearly the same thing with less expense. We fear his sliding-board will warp, unless securely clamped, and we would a little rather have the board sticking out in front, and the bees going under.

The idea of a portico underneath is excellent, and were it not for the amount of lumber needed, the entrance being out of sight, and some minor

considerations, we might adopt this. Thank you, friend S., for your valuable ideas.

Our out-door dry-sugar feeding seems to be a little misunderstood. Our bees have had a habit of annoying our grocers, at some seasons, by going into their sugar barrels, etc., and, as they did this in a very quiet way,—frightening the people only instead of hurting them,—we imagined if they were furnished sugar in the open air, they would prefer it to going in doors. In this we were perfectly successful, and in the fall it also started brood-rearing, and reduced matters to something like natural industry. We would not feed it very near the hives; perhaps one-fourth of a mile distant would answer as well. 'Tis also true we must feed our neighbors' bees, but this we prefer to do rather than have our friends at the groceries or cider mills annoyed. We never intended to recommend it as a profitable way of feeding for winter, etc.

We certainly did not expect the “lady in the South” to rear 1000 queens the first season, but thought if she made it a business as she would school teaching, she could do it eventually.

Will C. J. bear in mind that queen-rearing is in its infancy yet? If he wishes 1,000 or 10,000 at \$1 each, we think his order can be filled.

In regard to patent hives: We really do not know that we have ever received an idea that we now consider valuable from all the patent hives combined, always excepting the Langstroth hive. If we have appropriated any such ideas, we should be most happy to be set right.

In regard to manufacturers' patents, we presume it is well known that almost the entire contents of our hardware stores are patented, but “rights” for these wares are not peddled about the country.

The “metal corners” are simply patented as an article of hardware, and we hereby tender an individual right

to make and use to all the bee-keepers in the land, if it will be of any service to them.

NOVICE.

ITALIAN BEES.

We winter our bees on their summer stands, in simple movable-frame hives so arranged that the upper frames come in three-eighths of an inch of the lower frames. In November, we take out the upper frames, and, if there are not stores enough in the lower ones, we feed syrup of A coffee sugar. We put three half-inch sticks across the frames—one one-eighth of an inch thick—across the center of these, over all of which we place a quilt made of three thicknesses of wadding, covered on both sides with heavy brown muslin. We thus have good winter passages. Our hives all face the south, with hind legs one inch longer than the front ones. The hives are six inches from the ground, and are arranged in straight rows, north and south, and east and west, eight feet apart each way, and partially shaded by trees. The honey extractor is our non-swarmer.

We have just finished looking thro' our apiary, and find every colony, without the loss of one, full of bees, full of brood, with plenty of stores, and working on the profuse and sweet-flowering fruit trees with a joyous hum—that hum of ten thousand million bees which gladdens their master's soul, and causes him, as he walks from tree to tree to praise the Author of the beautiful and the good.

We regard Italian bee culture as the most interesting, intellectual, fascinating, and profitable employment of which we have any knowledge. We well remember when those beautiful golden queens enticed us away from our invalid bed to spend our mornings and evenings,—aye, every idle moment, which, with the daily use of pure honey, caused us to gain pound after pound in weight, until our

health has become all that we can desire.

And while the sweet flowers shall continue to bloom in every quiet little nook, in every valley, and along every silvery stream, to adorn the poor man's cottage as well as the palace, and their rich fragrance sweetens the air we breathe, and causes the industrious bees to sip the nectar from their tiny cups,—may the progeny of those beautiful queens never be less.

KARL WINTERS.

Middle Tennessee, April 6, 1874.

PRACTICE vs. THEORY.

In a communication over the signature of M. Quinby, in March number of *Bee-Keepers' Magazine*, prefaced by a description of his new smoker, he remarks:

"If a man accompanies me into the yard, when they are flying thickly, I can soon tell, by his actions, how well he is versed in their nature. When he gives more attention to the passing of a bee than the subject he wishes to investigate, I cannot avoid thinking he will make slow progress."

Thus most writers upon bee culture seem to carry the idea that to move about the apiary in a bold, fearless manner will secure immunity from bee stings, and intimidate the watchful sentries on the look-out for approaching foes. Now, this is theory: will it bear the test of practice? I think many a bee-keeper will answer emphatically, No.

That physical nature which seems to exempt some from stings is only possessed by comparatively small portion of a community, and none of them with whom I have an acquaintance are practical bee-keepers. Although they do not have any fear of stings, yet they do not seem to have any love for practical bee-keeping. It is just as impossible for some persons to enter a yard where bees are being constantly disturbed by removing the surplus, and not get discomfited, as it would be to attack a pole-cat and not be the worse for the encounter. Many

good practical apiarians cannot handle bees without some protection for hands and face, yet this precaution does not proceed from any lack of courage, but from a knowledge of what is to be actually expected if not prepared to go through the manipulation of the hive.

I have seen persons enter our yard determined not to pay any attention to assailing bees at last be compelled to succumb to mere force of numbers, and beat a hasty, inglorious retreat. I have found myself working over a hive in all confidence till warned by a hit, plump in the face, that I had forgotten to don my bee apparel. I am sure I lacked no confidence, for, according to the old adage, "Where ignorance is bliss 'tis folly to be wise."

When the morning air is fragrant with the perfume of a thousand flowers, and millions of industrious workers, from "rosy morn till dewy eve," are hoarding treasures from nature's sweets, then can the apiarian truly admire the peaceable disposition of his winged laborers; but let forage become scarce, and warm weather follow,—presto! the change. Blacks and hybrids pitch for eyes and nose, and yellow pets become inveterate foes.

C. R. ISHAM.

Peoria, Wyoming Co., N. Y.

HOW TO FASTEN COMBS.

When I first commenced using the extractor, I had much trouble with combs loosening from the frames, and in some instances falling out entirely. As undoubtedly there are some readers of the JOURNAL who will use an extractor for the first time this season, I propose telling them how they may get their combs firmly fastened to the frames all around, thus rendering them much less liable to be broken.

First, with a thin-bladed knife cut the comb loose from the frame; let the comb down until it rests on the bottom of the frame, and fasten with twine or splints; replace it in the hive

for a day or two, when the bees will fasten it not only to the top bar and ends but to the bottom of the frame also. New combs fastened in this manner will bear as rough handling as old combs will when they are only fastened to the top bar and down one-half or two-thirds the length of the ends, as the bees usually fasten them.

We have some worker combs which are unfit for brood combs, also a number of drone combs, prepared as above described; these we call "extractor combs," as they are designed expressly for obtaining extracted honey from. That we may know them at a glance, when the hive is opened, we paint the upper side of the top bar black.

To Induce Bees to Build Worker Combs.—Some have told us that when a swarm begins to build drone comb, we should cut it out, intimating that, by so doing, the bees then go to work and fill the frames with worker comb. Our experience is that, nine times out of ten, they will rebuild it with drone comb. Therefore, when they commence building drone comb,—or rather just before they commence building it,—(a large swarm will usually build five or six combs before they begin to build drone comb) we put a frame or two, according to the size of the swarm, of drone comb near the center of the hive, with an empty frame on each side of it. The bees now finding a sufficient quantity of drone comb, will continue to build worker comb exclusively, provided you do not allow more than five or six full built worker combs to remain in the hive while they are building comb. As soon as they have two combs completed, remove them and place an empty frame each side of the drone comb. When the required number of worker combs have been built, remove the drone comb and replace with worker.

The above ideas are original with us. Though they may have been in print, we have never seen them. Perhaps others have thought them of too little

importance to be worth mentioning. Should our editress think the same we hope she will consign them to the flames.

S. W. STEVENS.

Ridgefield, Conn.

A BEGINNER'S EXPERIENCE.

As you requested me to report to you how I succeeded with my bees in winter quarters, as reported last month, I have to say that I have brought them through thus far safely. I set them on their summer stands March 13. They appeared quiet for a day or two; then a part of them were excited and uneasy, and, before I was aware, two swarms came out and went in with another, thus making three in one hive. I sprinkled them well with sweetened water, and they seem now to be getting along harmoniously together. I expect to get several swarms from this triple hive.

In regard to just how warm it will do to keep bees during the winter, I do not know, but am led to conclude that they can endure much more heat than cold. For example: I have a friend who has one hive of bees; they were weak in numbers in the fall, and had not more than two or three pounds of honey. He, having no cellar, took them into his living room, which was very warm. He kept them standing only a few feet from the stove, and fed them a little once every ten days or so. So far, they are all right. They were set out only about the 1st of this month, and to all appearances could not, in the circumstances, have done better. Having no thermometer, he cannot tell just what degree of heat was kept, but I apprehend on baking days it must have been near 70° Fahrenheit.

I think this experiment would go to show that bees may winter well in a room much warmer than 30° or 40°.

And, again, I am led to conclude, from what my friend writes me, that he has fed very much less to his bees than I have to any one hive of mine,

thus showing that the warmer they are in winter the less feed they consume.

Hoping these few hints may lead some new beginner, like myself, to protect the little "busy bee" well during the winter months, better than is generally done, I remain,

J. W. MARGRAVE.

NOTES FROM MINNESOTA.

I have received three numbers of your valuable journal, and to say they are excellent would not do justice to so good a work. I peruse them with pleasure, and get a great deal of good advice from them. I think it will be, if it is not already, the leading bee journal in the West. I shall remit some money to you, just as soon as I can, for the JOURNAL and past favors received. I am making a few hives and fixing up my apiary some, so it makes times a little hard just at this time of the year.

I will give you an account of how the bees came out this spring. It has been a long winter. Snow fell the 15th of November ten inches, and has been out all the time since. There are 12 to 18 inches of snow yet. It has been mild and pleasant most of the time. We have had a few days of warm weather the last of March, so that bees came out. They seemed glad to get out. Out of 14 swarms, I only lost three young swarms. They came in July; eat up all of the honey, so they starved. If I had put them in my cellar, and fed them, I might perhaps have wintered them. I kept them as I told you in my letter last November. My father lost two out of four on the summer stand. Mr. Graves lost eight out of ten on the summer stand. I have taken a great deal of pains with my bees and like to tend and work with them.

If you like, I will write once in a while and let you know how the bees do, in increasing and making honey, in this locality.

ROLLA STUBBS.

Long Lake, Minn.

INTRODUCING, OR CHANGING QUEENS.

As many new beginners in improved bee culture have trouble and loss in changing queens, which I know is very unpleasant and discouraging to them, I will give my method, if the editor thinks it worth publishing. It may be of value to some, as it is very simple and easy—no trouble looking after queen cells, and with me has always proved effectual.

I first catch the black queen which I wish to remove, put her in a small cage between two combs that are filled with brood; let the cage hang 24 hours, then have the Italian queen in readiness, open the hive with all possible caution, lift out the cage, brush off the bees, let the black queen go out into another cage or box, put the Italian queen in the same cage that the black one came out of with as little delay as possible; return the cage to the hive again just where it was when the black queen was in it; let it remain twenty-four hours, then lift it out, remove the cork and tie over the mouth of the cage a piece of thin paper saturated with honey; place the cage in the hive again, for an hour or two, when it may be removed. After removing the cage, I never open the hive until the second or third day, when I have always found all right.

Last season I failed to raise any early queens, and in the last days in May I received, as I supposed, a choice Italian queen from Mr. Faulkner, of Vevay. I felt over-anxious about her safe introduction, and tried her on the eight-day plan; and the bees either killed or drove her from the hive; but the weather was wet and disagreeable, and the bees in rather bad humor, or they might have received her, for in a few days they received a hybrid kindly. In July and August I changed seventeen in the way first spoken of, and all were kindly received.

Last season I opened a large hive, intending to cage the black queen.

On the first comb, which I lifted out, I saw the bees destroying a queen cell, but no queen on that comb. On the third comb I found the old queen just in the act of depositing an egg in a worker cell, and all the combs appeared to be well filled with eggs. I put her in a cage, and laid the cage on top of frame. I then turned back to look over the combs on the opposite side of the comb on which I saw the queen cell, and on the second comb I found a fine young queen. I took her off, clipped her wings, and gave her to a queenless colony, and the second day she was filling the comb with eggs.

J. T. WATKINS.

Dearborn Co., Ind.

DO NOT LOSE THE WEAK SWARMS.

Now, we all know that theory says that bees must have sealed honey to subsist upon through the winter, and I think it is much the best plan when swarms are known to be short of sufficient store to feed early in the fall, while it is pleasant weather, that they may make a more natural food of the material given them, and be done with much less trouble than to feed all winter. But, to show that they can be successfully wintered, even when they are entirely destitute of sealed honey at the beginning of winter, I will give a short history of a few colonies I have kept through the last two winters.

Some time in November, 1872, I was visiting a friend some ten miles distant. While there I asked him how his bees had done through the summer. "Well," said he, "they did nothing but swarm, and the swarms made no honey; so, I have killed them nearly all off, and have a notion to kill or sell the balance and quit the business. Now," said he, "there is a second swarm there, that I know has not a single pound of honey, and they are such fine looking bees that I hate to kill them, and if you will take them home with you, take them and wel

come;" and, as the day was not very cold, I fixed them up and brought them home with the rest of the children. They were in a long box hive, and had seven pieces of comb, the longest one measuring ten inches in length. The next day I took my brace and half-inch bit, and cut a block out of the top of the hive two and one-half by five inches. I then took two common glass tumblers; one I filled with good thick sugarsyrup and the other I filled with water, with a small portion of salt in it. Over the mouths of these tumblers I tied a piece of common muslin; (a heavy woolen string is the best to tie with, putting the string three or four times around half an inch below the mouth; then invert the glass and press against the cloth with the back of a spoon; continue to press until it quits leaking; then scrape off dry). I then placed the tumblers over each end of the hole in top of hive, leaving about an inch space between for ventilation. I then placed on and around these tumblers a lot of old, but clean and soft, woolen cloths, to absorb moisture; over these I placed a box with small cracks in the top. I then doubled together two coarse coffee sacks, and laid them in a back corner in the sitting room, and set the hive on them. Every three or four days I would raise the box and cloths to see if the tumblers were empty; if empty, I would darken the room, and lift the empty tumbler carefully, and if any bees adhered to the cloth, would brush them back with a large feather, raise one side of cloth, and refill the glass; pull the cloth and string over again, and press with spoon as before, and return to hive again. The children played around the hive, without any restraint.

The bees kept up a little humming for a few days, and after that all was perfectly quiet. Whenever there was a day warm enough, I would let them out to have a flight; but the weather was so steadily cold that they would

have to remain in the house some times for several weeks. When pleasant weather came, I let them out and continued to feed as before, but would take them in on frosty nights. When fruit trees came in bloom, I transferred them to a movable-comb hive. The seven little combs were well covered with bright young bees, and, as I wanted to see what they could do, I gave them no more comb than their own, but continued to feed. The hive was an eight-frame hive—comb, 10 $\frac{1}{2}$ inches deep and 16 inches long. They soon filled the eight frames, and then filled 26 small frames on top. These I took off when full, and they weighed 54 pounds; for these I got \$18.50. I then divided the stock, without giving any extra comb, and during the linden bloom they filled both hives over-running full of bees and honey and at present writing, (April 7, '74,) they are in fine condition.

This last fall I gathered up seven hives, all about in the same condition as the one first spoken of, only all black bees. I got them all for a mere nothing; those I kept in the same way as the first, only in a dark room warmed by a stove; and all but one, at the present time, appear to be in fine condition. I set them out one very warm day in February, and the bees came out of that one and went in with another. I think they were queenless, as I could see no queen.

J. T. WATKINS.

Dearborn Co., Ind.

We have received several papers on wintering bees deserving of highest consideration, from the fact that the writers have been very successful in wintering; but we think best to defer them for the present, and publish them later, when bee-keepers are anxiously seeking light upon that subject. We mention it, lest friend Salisbury and others should think their articles undervalued.

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MAY,

DES MOINES, IOWA.

1874.

HOW TO MAKE SWARMS.

FOR the benefit of some who have requested us to give directions how to make swarms when bees are still in box hives, we describe the method as as explicitly as possible. It is much better to do it than to allow the bees to swarm naturally.

In the spring, all prosperous colonies, well supplied with honey, rear broods in large quantities. The queen deposits the eggs, and when they are hatched, the workers feed and care for them until they are sealed over, ready to emerge from the cell perfect bees. By the 1st of May, drones or the male bees are reared, and by the last of May the hive is full of inhabitants. Then, if the weather is pleasant, and honey abundant, preparations for swarming are commenced—queen-cells, as they are called, are begun, and when the first of these young queens is nearly grown, the old queen, with the majority of the old and young bees, leaves the hive to seek for herself a new home. This is called swarming. The old hive is left full of bees just hatching, and brood in all stages rapidly developing, and in a few days a young queen will emerge from the cell.

In order to be successful in artificial swarming, it is only necessary to copy the bees' natural way, and secure all the elements of prosperity in the new as well as the old colony. Many bee-keepers still have only the old box-hives without movable combs, and such suppose they are at the mercy of their bees, having no power to control swarming. This is not so, and we

will describe a way by which they can with ease make new swarms. We, however, advise all to procure movable comb hives—and they will find no better time to commence than this year in swarming time. If you procure at least one hive of some good form, simple of construction, and put a swarm into it, you will be convinced by actual use of the advantages of this improvement of hives.

When bees are in a box hive, have an empty one, or a box of the same size and shape in readiness. As soon as drones appear, or about the first week in June, you may safely attempt it. Make a small roll of old rags, or procure a piece of rotten wood and set it on fire. Go to the hive in the middle of a pleasant day, when many bees are absent in the fields. Blow smoke into the entrance of the hive, at the same time rapping smartly on it. Leave them a few moments, and the bees, alarmed, will proceed to fill themselves with honey—this they always do before swarming, and it is necessary that they should thus take provisions with them into their new home.

After ten minutes have elapsed blow in more smoke; lift the hive and carry it a few yards from where it stood, that you may not be troubled by the returning bees, leaving an empty box or cup in its place. Turn the hive bottom upward and put over it the box of the same size, stopping all holes between the two with paper or leaves. Then, with two light sticks, drum smartly on the hive for ten or fifteen minutes. The bees, alarmed at this

treatment, rush into the upper box as fast as possible, and in less than half an hour will be found clustered there with their queen. Then spread a sheet or cloth before the new hive you wish the bees to occupy and empty the bees upon it. Stir them up a little with a brush or wing, and they will run up into the hive with all speed. When they are all in, take up the hive and *set it just where the old one stood*—removing that a few yards from it. Your new swarm will have their old mother, most of the bees, and carry plenty of honey in their sacs to start them in the world. The old hive will retain bees enough to attend to the wants of the colony—it will be full of young bees and soon have another queen. If this operation looks formidable on paper, it is not so—bees are easily managed. We never failed to have perfect success in every division of this kind we have made. We never saw any difference between new colonies, made this way, and natural swarms, except that those so made are never likely to abscond, and can be made safely two weeks before they would have come off if left alone, thus having in their favor two weeks of the best of pasturage.

NEWS ABOUT BEES.

These "news items" we cut from the editorials of the *Christain Union*. If the editor had only once in awhile, for the last twenty years, looked over a bee journal, or even the column of any agricultural paper published in his own country, we think he might have given us this "news about bees" a little sooner, without being indebted to an English bee-keeper's "recent observations":

Mr Pettigrew, one of the most successful of English bee-keepers, has made public results of recent observations, some of which are new to us, and tend, if possible, to increase our respect for these wonderful little insects. The king or queen or mother, as he, she, or it is variously called, is hatched from the egg in fourteen days, whereas it takes twenty-one days to hatch a "worker," and twenty-four to hatch a drone. Moreover, the queen lives four years, while the worker's max-

imum lease of life is only nine months. The bees have the power, or knack, of selecting their queens before they are born. That is to say, they will select an egg from the common stock, that has no "ear-mark" perceptible to mortal eyes. This they place in a royal cell, and feed the grub with a milky gelatinous substance known as royal jelly. The result is that a queen is developed. A healthy queen will often lay two thousand eggs a day during the heat of summer, and may, in the course of her life, deposit as many as eight hundred thousand eggs. It has been ascertained, by observation, that the fructifying of many flowers is due to the constant passing and re-passing of bees, whereby the pollen is mingled. And many careful gardeners have found it impossible to keep distinct the different varieties of a species, owing to the "crossing" effected by these industrious messengers.

WE have received a communication from Mr. Mitchell, claiming that we did him injustice in our March number. We do not think others understood it as he did; but, though some parts of his letter are too personal for publication, we print all of it that interests old subscribers to this journal. Mr. Mitchell certainly offers all that is possible, and we hope those feeling that he owes them will write to him and receive what he promises to pay.

We had no intention of injuring Mr. Mitchell in any way, and do not think our article could be made to mean it:

MRS. TUPPER:—I find on looking over the NATIONAL BEE JOURNAL for March an editorial that certainly does not do me justice. I do not think the editor would wilfully do me me injustice, and I do hope that you will allow me to make a brief statement of facts, and then let your readers pass judgment upon me.

Up to the 1st of February, 1872, I was editor and publisher of the NATIONAL BEE JOURNAL, and in order to increase its circulation, we offered queen bees, on certain conditions, as premiums. On the 1st of February, 1872, I sold the JOURNAL, my successors agreeing to furnish the premium queens, for proof of which I refer you to an editorial notice which appeared either in the February or March number of NATIONAL BEE JOURNAL for 1872. You will find that my successors there announced that they had purchased the JOURNAL, and were to furnish the premium queens. Some of the queens I know they did furnish. One of the editors told me, at the end of the queen-breeding season, that they had furnished every queen but about thirty, and they would be forthcoming early the next season; but, after all, it seems they were not all delivered, or sent to those subscribers who were so justly entitled to them.

I think the reason the queens were not fur

ed, as per agreement, may be accounted for in this wise: When the sale was consummated, and the transfer made out, we forgot to have the queens mentioned in the transfer papers. Some time after, one of my successors discovered the omission, and after that every queen that they furnished was under protest; but, in justice to the senior partner, I will say that he always said they were bound to furnish the dollar premium queens. But, as before said, the queens were not all furnished, and the question with me now is, Who have received their queens, and who have not? I have no means of knowing, for when I sold out every name and address went with the JOURNAL. I will say, in this connection, that every man, woman, or child that is entitled to a queen on account of the NATIONAL BEE JOURNAL prior to the 1st of February, 1872, to send me your name and post-office address, and I will cheerfully send you the queens that you have so long waited for.

I have many good and true friends among the bee-keepers, who know my situation, and who have a fellow feeling, and who have lent me a helping hand. You will never be forgotten for your kindness. A man never knows who his real friends are until he meets with adversity.

And now, in conclusion, let me say to my old friends who are entitled to queens or anything else on account of the NATIONAL BEE JOURNAL, I will be at Indianapolis after May 1. To that place address all your letters. N. C. MITCHELL.

Columbia, Tenn., April 8, 1874.

Do NOT be afraid of stings. Bees will not sting when their honey-sacs are full. If you alarm them by rapping on the hive or with smoke, they will fill their sacs and will not sting. That is the whole secret of the matter. If you are timid, wear a pair of woolen mittens, wet in cold water, on your hands, and provide a piece of black millinet, with elastic cord in each end, to slip over your hat and draw about your neck. Be quiet and resolute in your movements, and the bees will have no disposition to molest you. You will soon gain confidence.

WANTED.

SPARE copies of BEE JOURNAL for 1874. Any one sending them to this office will confer a favor on several who want to preserve their files.

THOSE who are getting up clubs for the JOURNAL are requested to send the names as fast as they get them.

Notes AND Queries

Has the patent on the comb-guide expired? George H. Clark, I believe, is the patentee.

SUBSCRIBER.

Make any kind of guide you please, without regard to patent.

My bees are all right so far. Drone brood capped over. My stocks consumed about four lbs of rye flour to the stock. They gathered their first pollen the 11th of this month. Ed. W.

Riverton, Iowa, Apr. 13.

We came to this place, three years ago, with two stocks of Italian bees in the Langstroth hive. The first year they increased to five by dividing; saved four in cellar; had some box honey. Then in spring began to feed wheat bran and sugar and water with a sponge from top by taking off honey box; increased the next year to 14 and 300 pounds of honey; saved 12, and last year went up to 32 in all; saved 28 all in good shape this spring. Have no extractor, and never had any instruction but from reading. I like to attend bees very much. I am a great lover of flowers, and raise the single balsam in large beds for the bees, which they work well on. I don't use a veil. Mrs. J. B. R.

Mills Co., Iowa.

We like to record such instances of success as this, for the benefit of those who inquire where they can go to learn how to keep bees. A determination to succeed is all that is necessary, when so much is written on the subject. We rejoice in this woman's good beginning.

I transferred some bees about the 1st of March, and then they were building queen cells, and I thought they would have swarmed by the middle, and no doubt they would, had it not been for the cold rains that set in at that time. It rained, more or less, every day for three weeks, and that put them back. There were plenty of drones. I hived the first swarms the 4th inst., for a neighbor of mine. There were two came out at the same time and settled within a few feet of each other. They were in small box hives,—or gums, as they call them. I put them into good movable-frame hives; at least, I think them good; gave them a sheet of brood from another, and now they are doing well. I divided mine on the 7th, finding they were bound to swarm; so, that gave me another good strong colony. I now have four, and shall soon have to divide or make one from the four. My bees com-

menced work in the surplus frames in March, but the cold rains put a stop to that.

We have six or seven varieties of clover, but as for their value as honey plants, I can't tell yet, for only two or three are in bloom and one of them gives both honey and pollen; it is called buffalo clover.

A. K. B.

Corsicana, Navarro Co., Texas.

Every section of our country susceptible of cultivation, and sustaining a fair amount of population, furnishes an amount of honey-producing flowers, of the products of which the inhabitants should avail themselves. Very few appreciate the actual amount of this interest. Probably but a small fraction of this valuable product will be secured until the farmers through the country become pretty generally interested in the work. While experts in the business devote their time to its successful prosecution, secure large amounts individually, yet they are so sparsely scattered that the proportional amount they gather is but as the drop in the bucket. It cannot be expected that with the important business of the farm pressing upon them that they can make the collection of honey more than an incidental work. That it must be so arranged that it will occupy but little exposure to the hostile attacks of the enraged insects.

If the old custom is pursued of using small hives, with a cap to cover boxes, for a few pounds of surplus, with one, two, or three swarms annually, the result will be little surplus, and so much care, and every three or four years the destruction of a large part of the colonies, and bye and bye the whole perishing by starvation, or some disease, and all is given up in disgust. This has been the case in thousands and tens of thousands of instances all through the land, and I don't know but the world. With a hive requiring no attention, but placing the boxes on in their season, and removing them when filled, securing from 100 to 200 pounds of surplus honey, using from one to ten such hives and colonies according to his field, and other colonies of bees in his vicinity, he might secure 500 to 1000 pounds with trifling expense, except procuring surplus boxes for his honey. One hundred, two hundred, or three hundred dollars might thus be secured annually at trifling expense compared with the labor and cost of his other income.

From the experiments I have made since I entered my 70th year, and the results of those experiments, I have no doubt about the matter. The second year in which I practiced this method four colonies placed in the hive the year before gave me 500 pounds of surplus. One hive has given 100, 140, 145, and 200 pounds in four seasons, and promises fair for the future. I know some will feel shy about movable frames. Either frames or bars are used in this hive, and the best colony has only bars, and is as easily used as the old box hive with a cap upon the top. It has never shown any disposition to swarm, save the year when I left off the boxes to procure swarms from it.

If farmers would be encouraged once to make the trial generally, honey might become the cheapest sweet in the market. JASPER HAY.

We give Mr. Hay's report, though our experience does not correspond with his. We made careful trials of his plan several years, without securing anything like the results which he reports. The climate and resources in the West are very different from where his experiments have been made. Our bees would swarm, in spite of large hives, or any number of surplus boxes. Will others who have tried his plan report?

Bee-keepers in this section are mostly farmers. Of these I have visited over one hundred, who have from one to fifteen stocks, in the old style hive, and black bees. One hundred and sixty of these stocks are under my care. Each one has different kinds of patent hives—or nearly all. One had a hive that would cause the bees to produce a swarm every 22 days all summer; another having the advantage of enabling the bees to make five times the amount of honey they would in the old style hive. One kind the bees never left,—which was the case, for the frames were just close enough to the side of the hive not to let the bees pass between the hive and frame; but a nice place for millers, while the bees really did not leave until death, which was certain in every instance. There is a patent-right man selling hives near here now. The principal feature of it (so advertised) being a miller-proof hive, which has the same fault as the above mentioned, the frames being too close to the end.

There are some men ready to take up anything that comes along, or is advertised, whether they understand the principle or not, and are gifted to over-persuade a person to invest in a thing they know nothing about. If they happen to get the hive they sell made right, very good, and if not, all the same. A man; only two weeks since, came to me and said he understood I had a very nice hive; said he was going to sell some hive, and wanted the one he could make the most money with. He did not care a farthing for the parties who purchased; "money was what he wanted." So it is with too many; they want money regardless of principle, self-respect, or the best interests of others.

An old and highly respected citizen told me that a few days since a patent-right man told him the hole or passage in comb was where the queen sits and gives orders to the workers, and another had major and minor queens. I suppose young and old was what he meant, but this man supposed it to be a new kind. Thus I might mention instance after instance of these delusions.

My observation and experience has been that a good strong stock of bees in a hive like or the

same as is described on page 72 of your journal, March number, and the knowledge to be gained from your paper, thoroughly mixed with common sense and good judgment, will make a miller-proof hive, bees increase, make honey, money, and give venders a wide berth.

JAMES G. ARCHER.

Hillsdale Co., Mich.

Bees here are doing finely, gathering honey rapidly from fruit blossoms, and from appearances are in fine condition; but, I am sorry to say, the people of this section are at least one hundred years behind the times in apiculture. All keep their bees in hollow logs, and rob them from the top of the hive, cutting out all the comb as low as the cross sticks in the hive. This is usually done in the month of June, and with this system I am told it is not an uncommon thing to obtain from fifty to eighty pounds of honey in one season.

The grey bees of the South are the only bees I have seen since I arrived on the Cumberland Mountains. Extracted honey here sells readily at 15 cents per pound. But little comb honey is offered, and, as a general thing, sells the same as extracted; so, you see, the extracted will come in play here. I shall use a hive somewhat similar to the Langstroth, with twenty frames, ten below, and ten above.

The honey-producing plants or flowers are the holly, laurel, wild ivy, two varieties of golden-rod, and a thousand and one wild flowers of the forest. The honey season commences in March, and lasts until November, with scarcely any intermission. During the months of July and August, honey dew abounds all over the tops of the mountains, during which time the little pets have all they can do.

I will try and keep you posted in everything pertaining to apiculture in this section, and when fall comes hope to be able to give you a good report from the rocky summits of old Cumberland Mountains.

E. H. BARBER.

Braden's Knob, Bledsoe Co., Tenn.

We are pleased to hear from our friend, the former editor of this journal, and trust he will keep his promise made herein.

We want to know the extent of our bee forage. From Maine to California, and from Minnesota to Florida, each locality differs from all others in some respect. The first question is, concerning the early forage at the opening of the season, by which the colony prepares for the honey harvest to come. The whole success of the business often hinges on the abundance or deficiency of early forage. In my neighborhood, our reliance is upon the soft maples and the elm, until the dandelion and fruit-trees commence blooming. We are deficient in early forage, and, up to this date, we have had but little other than the above. And, besides the fruit-trees and small fruits, our

region lacks many of the best forage plants for a month to come which many regions have. But we do not lack cultivated fruits. Unless in rare instances, when the season is very favorable, we obtain no spare honey until the white clover appears, from which we obtain the most of our surplus. One season, some years ago, I obtained a large quantity of honey from the apple. At other times from the black locust, which comes close upon the apple, we get some surplus. But, if everything is ready, and the season is favorable, our honey source in white clover is practically inexhaustible. After the white clover fails, if we have not a harvest, we hang up our tools. Buckwheat has failed to furnish any honey, of late years, in our neighborhood. Not uniformly but occasionally, in dry summers, the red clover has proved a valuable forage plant. One fall, about four years ago, the heart's-ease, a *polygonum*, furnished the winter food for our colonies and some surplus. Bee-keepers will notice the deficiency in my immediate neighborhood of some of the best plants for bee-foreage. We have neither linn nor poplar (*liriodendrum*); our golden-rods and asters are not an important source of honey. This is not the case very far in any direction from my locality though neither linn nor poplar (*liriodendrum*) constitute any considerable portion of our native forests in Southwestern Ohio. I have not exhausted our list of plants, especially of forest trees; for I have not undertaken to enumerate those which bloom contemporaneously with our small fruits and fruit trees, because just then they are not so important on account of the abundance of the later and the fickleness of the season.

Our subsidiary blooms are an important consideration. I would invite our contributors to apian literature to give a list of the successive sources of honey and pollen up to and after the main source of surplus honey. Then, with the knowledge of this main source, we can form an intelligent opinion of the capabilities of our country, and all parts of it, for the production of honey. If I am not mistaken, we shall be literally astonished at the ungathered sweets which go utterly to waste. We can understand better why some succeed better than others without resorting to fine-spun theories.

1. What do your colonies build upon in the spring?
2. What do you obtain your surplus from?
3. What fall forage do you have?

Lockland, O., Apr., 17, 1874.

JOHN HUSSEY.

My frames are 12x14 inches; my hives hold 8 of them. I at first put a cross bar or support across; one-half of them six inches, and the other half eight inches from the top, placed in alternately; but I find the queen is slow to go below the bar although it is covered with comb, and I have been cutting them out. I have frames of comb of one year old and upward without brace, and I have had them well filled with brood and some with honey that are strong enough to bear the weight

at all times, but I fear they will break while building.

I have found my hives too small for the extractor, but could not induce the bees to work on top, either in boxes or small frames, until after a good flow of honey, and for a considerable length of time, which we have not had for three years.

My bees came through all right, and are carrying in pollen every day they can fly. They commenced carrying pollen March 17; used but little flour this year, which had to be fed in the hive.

Geo. R. HUFFMAN.

We do not think you will have any trouble if you handle with reasonable care.

A good honey season will send your bees into the upper story. If not, put a frame from below up-stairs.

I think E. N. Poole's neighbor, Blackburn, lost his Italians because they were too cold, or their feed had too much water in it.

Was very much interested in S. W. Stevens's new bee-hive stand, but think it too simple. I would gear it with a pair of cog-wheels, as I like complicated hives and fixtures.

Am of the opinion that T. G. McGaw's syrup would be a little "too thin"; would put eight to sixteen times as much sugar in as he does.

Bees here, with few exceptions, wintered well, and came out strong.

I had a neighbor who had two colonies that had become very weak, and about the middle of February he lifted the bees (black ones) out of the hive, with the frames, on which they clustered, and put them in the other hive (Italians).

About the 20th of March, I found two small clusters of bees in my garden, near my hives, each cluster enclosing a queen. The bees on the Italian queen were all Italians, while the ones on black queen were part one kind and part another. On examination we found my neighbor's hive deserted. Do you think it improbable that the two queens lived in the same hive more than a month, and then both left at once?

Would you advise rearing queens before drones appear?

P. HADLEY.

Windsor, Ill.

It is not improbable that the queens remained in different parts of the hive all winter. We once had a present of bees in a hive destitute of stores late in the fall. We took it home and poured the bees out in front of a colony, not waiting to look for the queen, supposing that the bees would dispose of one queen and unite peaceably. A large twelve pound honey box was on top of the hive with a little honey in it.

The bees must have marched straight

through the main hive to this box, and there they wintered. In the spring one queen was in the box, the other in the hive below. We took off the box, put the bees in a hive full of comb, fed them well, and it became a valuable colony.

We do not say anything like this occurred in this hive, but give it as the instance most like it in our experience.

What is the most profitable crop to raise to gather honey from? I think of keeping bees, in connection with fruit-growing, and also the poultry business. I have 80 acres in Southwestern Iowa, and I have ten acres of land in Southern Illinois, near Alton. I suppose around Alton would be the better place to keep bees, as it is a great fruit country. They raise all kinds of small fruits, apples, peaches, and pears.

Have you a catalogue of the different honey producing plants, and which will give the best and most honey to the acre?

Will it pay to raise white clover for bee pasturage alone?

I suppose a person must raise a variety of crops to keep them gathering from spring until frost comes?

S. G. C.

Plainwell, Mich.

In either Southwestern Iowa or near Alton, Illinois, you will find plenty of good pasturage for bees, without raising anything for them; still, it will not be amiss to sow as much Alsike clover as possible; that is better than the white buckwheat to help out some seasons.

Bee-keeping in this part of the country is at a low ebb. No kind of hive is used but the box. I have a few hives that are doing very well. They have plenty of young bees and drones; have been flying about two weeks. Please give information through your journal how to make good hives that are not patented.

E. M. WISE.

Ellis Co., Texas.

Does the use of the extractor injure the comb? Would you advise me to be at the expense of Italianizing my whole stock?

I confess to being a "novice" in the bee business, but intend to make it a specialty this season.

JOHN LINCOLN.

The use of the extractor does not injure even new combs, if reasonable care is taken.

We would advise, by all means, to

Italianize your stock in some way. Try one or two first, and compare results from them with those from your black bees, and you will know yourself. Such "novices" as you are make the successful bee-keepers.

My frames are $19\frac{1}{2} \times 12$ inches, and it seems to me that it will be very difficult to handle such combs and extract without breaking, especially when the comb is new. Your frames, 12 inches square, would just suit me, and I can have mine made so by changing the entrance to the side and have the combs run the other way. That would not change the dimensions of my hives, but make my frames a more desirable size. I am anxious to get out my new hives as soon as possible, so that they may be seasoned and painted at least a month before they are needed, but did not think it advisable to proceed till I had the opinion of an experienced person. Please tell me if you think there is any objection to that kind of hive. I thought if you put in from ten to twenty frames in one hive, it must be that your hives were longer than wide; but do you have the entrance on the longest side, and, if so, how many inches long is your entrance? Mine are four inches by three-eighths.

I am anxious to have my hives all alike, and think it is worth a great deal to get started right. I could easily change the hives I have, (eight in number).

I can scarcely realize that I, who was so very much afraid of bees always, am now so fearless, and feel such an affection and respect for such persevering little workers; and it is such a study, and so interesting. I have read everything I could get hold of on the subject this past winter, and came to the conclusion that it was not only a healthy, agreeable occupation for women, but also a very remunerative one. And I have resolved to persevere and build up a large apiary. If I fail, I shall try again. I am starting my apiary on my own pocket money.

Manchester, Iowa.

ELLENA M. MUCKLER.

You may put your frames the other way if you prefer it.

We have an entrance to our long hives both in the end and on the sides, leaving one open at one season of the year, and the other at another; in very warm weather leave both open. Your entrance is about right.

By all means have your hives all alike, as the first step toward getting started right.

I began last spring with four colonies, which I had successfully wintered in an out cellar. I bought three Italian queens from a man who said he had pure queens, but those I got were all hy-

brids. I see he is advertising pure queens cheap this spring. Well, I hope they are all right this time, for I do not want any one to be as badly disappointed as I was. I think any person who advertises pure queens, and then sends out impure, should be subject to prosecution.

I increased my four colonies to twelve, and got 300 pounds of honey—100 box and 200 extracted. I could and should have taken at least 100 pounds more honey from them, and left them in a better condition for winter. I fed sugar syrup in the spring, and had them in good condition when the honey season began. I wintered five in my out-door cellar, and seven under a straw stack this last winter. All came out in good condition. I have purchased ten colonies this spring. I am feeding syrup now, although they have an abundance of honey. It is very cold here for April. Bees have got nothing outside yet.

Illinois, April 9.

J. M. VALENTINE.

I will endeavor to give you some estimate of the yield of honey per hive this season. Brood-rearing continues all the year; very little, however, in November and December. Several weak stocks and nuclei last October wintered well on summer stands, and required more room in March, and are now good stocks. I had young drones out February 15th. Commenced queen rearing March 1st. Swarming season begins in the latter part of March, and continues to September. I have been removing queen cells, dividing stock, or putting in empty frames for three weeks, to prevent swarming. One natural swarm issued on the 11th inst.—a fine large one. I hived them and they are doing well. A natural swarm issued August 25th last. I hived them, and gave them two frames of brood and six empty frames, which they filled with comb and stored abundance of honey for winter, and are now in a swarming condition.

I have never heard of the disease, foul brood, or any other bee disease in this country.

Pine Bluff, Ark.

M. PARSE.

We are interested in your account of bee-keeping in Arkansas. Send us more notes from time to time. We want information from every State in the Union.

My hives of bees came from Cedar Rapids, by express, about 550 miles. I hardly think they could call them both in good condition. One had the frames set in notches, so they could not slide together, and appears all right; lots of bees, (I think $1\frac{1}{2}$ quarts), and more than one full frame of honey, and two frames have young brood. The other hive was so arranged that the frames could slide together. The combs were considerably bruised, and honey run out in front of the hive, many dead bees. I don't think there is over a pint of live bees. One frame has a little brood in it, but it appears to be dead.

I have my first lesson to learn in beet culture

can I save the weak swarm? What is the first thing to do?

Will you tell me how and where to look for the queen, and how to know when they need swarming, and how to do it?

I am much pleased with your BEE JOURNAL. I get much information from it, but I find nothing which covers my case.

We put the bees out of doors to-day.

Will rye flour answer the same as rye meal for feeding? Should my bees have it? W. H. G.

Ellsworth, Kansas

Feed the weak one, disturbing as little as possible, till strong. Directions for swarming will be given in next number, and some are in this. Rye should not be too fine.

I commenced last spring with six stocks, two Italian, and four blacks. I increased them to 22 and Italianized them all. I raised my own queens, I intend making bee-keeping my business. I have sent for a queen, and expect her the 1st of June. I intend to send off for queens every spring to breed from. I would like to see a copy of your NATIONAL BEE JOURNAL.

MRS. D. M. HALL,

Rock Co., Wis.

You have started right, and we predict for you great success. None who combine practice with theory fail in bee-keeping.

Monday, April 13, six of my colonies came out to all appearances, to swarm. The air was filled with bees for more than three hours. Some of the swarms alighted on fruit trees, some on other hives, and a great many were killed that were trying to go in other hives. In this way I lost one of my best queens. Now, what was the cause?

Butler, Ind.

L. J. DIEHL.

We cannot even guess at the cause of this desertion of hives. Will the "oldest bee-keeper" answer Mr. Diehl?

Bees do not do very well here, on this big prairie, but I wish to try them. I have six stands, now all right, except one. The robbers are working on it some. How is the best way to prevent that? I interfere, and we have big battles. I have saved one or two before now by interfering.

Washington Co., Iowa.

ALEX. LYTLE.

Close the entrance nearly shut, and have no other place where bees can get in. If still troublesome, close entirely, and put a cloth entirely over it until dark.

The spring is very backward and cold, and bad on the bees, unless they are fed and cared for. Mine gathered some pollen about the 18th of

March. It then turned cold, and has continued very cold to the present time, and to-day it is snowing rapidly, and looks more like the middle of January than April.

I have been feeding lightly for the last month, just enough to stimulate them, and they are now in fine condition—stronger in numbers than I have ever had them. I hear of some losses of bees by those who manage them on the let-alone system, and, if the cold continues, there will doubtless be more.

J. G. THOMPSON.

Illinois, Apr. 16.

I am trying to make apiculture a business, but have not got much of a start yet. Am trying to inform myself as much as possible.

One of my neighbors had a swarm of bees come out of their hive and settle on the body of a tree. They then left that and went on another tree. He did not know what to do with them; so, he sent for me. I went to see them. They were still on the tree. I examined the comb, found it clean and nice, but there was no brood nor eggs in the hive. We then cleaned out the hive, and put the bees in again. We examined and found no queen, and no sign of any. He then told me that I could have them. I did not know whether I could do anything with them or not. Now, can I do anything with them? They are not a large swarm. I think if they were taken good care of, they would be all right. What do you think?

ED. J. HALL.

Chickasaw Co., Iowa.

You can keep them without any trouble if you feed them regularly with sugar syrup. We have often taken swarms in spring that had not an ounce of honey, and built them up into good, profitable colonies by swarming time. But there must be with the bees a prolific queen, and the feeding must be done steadily until there is an abundance of honey in flowers.

I procured a strong colony of pure Italians through a friend, last summer, and,—I being absent from home a part of the season,—he took care of them until this winter. Now, we have them, and I feel quite proud of my property. The first few weeks I visited the hive every day, and peeped in to see if they were still alive; but lately I've had no occasion to look in, for when I near the hive a dozen or more will come to meet me. I've always moved softly and cautiously around them, that I may not irritate or frighten them, if such can be done, but they don't seem to appreciate it, and insist on opposing all intrusion.

When will they be likely to swarm, (they were a swarm themselves last May) and how had I better do—artificially swarm them, or let them swarm themselves? I have seen swarms taken or hived but further than that am entirely ignorant, though

think I can learn most all a beginner wants to know from your pamphlet. BEULAH E. BETTS.
Bucks Co., Pa.

We think you will find about all you need in the way of advice in the JOURNAL. If the bees are in good order, they will swarm late in May in your climate; but we advise you to have a good movable hive prepared, and drive out a swarm to put in it, as directed in this number of the JOURNAL; after having done that, you will probably have courage to transfer the old stand to another movable-comb hive.

A great many experienced apiarians in their writings upon Bee Culture are advocating the exclusive use of the Extractor for obtaining surplus honey, speaking of the boxes with them as things of the past, and looking upon those who use them as being decidedly inclined to "old fogyism." In this progressive age of the nineteenth century in which progress and improvement are the watchwords of the times, are we not a little too much inclined to go after things of the "New-Idea" order, throwing up our hats upon every occasion that we hear of anything which strikes us as being a deviation from the old path; running our apiaries upon the wind-mill principle; talking about barrels and hogsheads of honey to be secured the coming season in spite of drouths or storms, when in fact our stocks are daily diminishing in numbers, and it is only by exercising the greatest vigilance that we can prevent the native blacks from running out our pet Italians.

That the extractor is an indispensable article in a well managed apiary all acquainted with its use will concede; but that beautiful comb honey is to be displaced by the extracted article will only take place when the eye loses its admiration for beauty, and fancy and style have nothing to do with the sale of this staple luxury. So long as the idea of crushed bees and other impurities is connected with the sight of strained honey, just so long will that put up in fancy boxes continue to command the higher prices. Were all bee-keepers, the coming season, to run their apiaries exclusively for extracted honey, and the season be as good as the past, I fear our markets would be glutted, and the crop only find wholesale buyers at a price but little above that of ordinary strained honey.

The basis for making this assertion is found in the low prices at which it was quoted the last fall and winter in the market reports of the principal places of consumption throughout the country. While glass boxes in New York were quoted at from 30 to 35 cents a lb., wholesale, extracted or strained was put down at from 12 to 15 cents per lb. To be sure, we sometimes get a better price for it when put up in jars, but how are we to keep it from candying? In the language of D. W.

Quinby, a large honey dealer in New York, and a brother to M. Quinby, "It soon candies, looks like lard, and doesn't sell."

I have a doubt as to whether these advocates of the slinger theory believe they obtain as nice an article by using the extractor as that stored away, evaporated, and sealed by the bees themselves. Has it the same luscious richness to the taste? I have heard very good judges say it has not! Take from the box a flake of white comb honey, built just the right size to fit a small plate, and it is, of itself, an ornament, even to the table of the rich, and will tempt the palate of an epicure. Slice that comb up into small squares, to be passed to each individual person, and can anything in the shape of liquid honey excel, or even compare with, that which drains into the bottom of the dish from the severed cells—clear as water from the crystal spring—aromatic as the flowers from which it was culled—tempting to both eye and taste, and pure as ever are the productions of nature's laboratory.

The symmetrical beauty exhibited in the structure of each comb—each tiny cell a perfect hexagon, solving a mathematical problem in Euclid,—furnishes subject for conversation, and all join in praise of the little bee endowed with such wonderful instinct. No wonder the old poets sang to its praise, for the product of its labors furnished an article of commerce to an extent beyond anything we hear of in these modern times of Italian queens and honey slingers.

I do not make these comparisons in a fault-finding spirit, but merely to get at a practical view of the subject, without ignoring what others have done before us.

For the past few years bee-keepers have had a serious difficulty to contend with, and I fear the advantages gained in building up swarms by the use of movable-comb frames is more than offset by the disastrous losses in wintering, and a close canvass would show that in the United States there is but one bee-keeper where there were ten several years ago; and is not this loss often greatly endangered by the too free use of the extractor—sometimes leaving hives in a starving condition at the close of a good honey season.

Some of our largest raisers and shippers of box honey are among those who do not report their experience through the bee journals. A few years ago Capt. J. R. Hetherington, of Cherry Valley, this State, sent to the New York market 25,000 lbs. of box honey, as reported, of his own raising. The same fall Baldwin Bros. shipped to the same market 10,040 lbs., mostly from their own apiaries, although at the same time engaged in rearing Italian queens for sale. I was informed by a commission merchant that a firm in Steuben County made one shipment of five tons. Besides these large quantities, there were numerous shipments of smaller lots varying from 500 lbs. to 5,000 lbs., yielding an increase of no mean significance. The same course is being pursued each successive fall, except, perhaps, not on quite so large a scale. Were the managers of these apiaries to contribute articles to our journals of apiculture,

what an amount of testimony would be given in favor of using boxes, besides adding a large amount of practical information to their columns, already so replete with useful knowledge.

It matters not how large may be the crop—if we have our surplus in suitable shaped four-sided glass boxes, it will find quick sale, at good remunerative prices, with no return or loss of barrel, as box honey in this shape sells at gross weight, without any question, the boxes often paying 100 per cent above the cost of manufacture. We are well aware that glass weighs heavy, yet consumers want it in this shape, and are willing to pay a fancy price for a fancy article, and in this case I think it pays better to let them have their own way, and not be quarreling about the tare on old wooden boxes.

Now that the season of 1874 is near at hand, and as many apiaries will be run either to box or extracted honey exclusively, I hope at its close those of us whose lives may be spared will have the benefit of a good many reports, and be able to decide, all things considered, which is the better course to pursue in obtaining the surplus from our apiaries. Yet, with a great many others, I am loth to believe that fancy box honey will ever be supplanted by the extracted article. C. R. ISHAM.

Wyoming Co., N. Y.

We are glad to give Mr. Isham's article room. Light on both sides of the question is what we want.

The bees have generally wintered well in this section of the country. I went into winter quarters with 54 stocks, three starved to death, one experimental swarm died, and broke up one queenless. The experimental swarm was a light swarm. I commenced feeding in January, to see if I could get them to breed fast in the bee house, but it excited the bees too much, and, instead of breeding, they commenced to either fly out or leave the cluster in the hive and die, but did not have the dysentery. The temperature in the bee house averaged 40°.

My house is one foot space between the boards, packed with sawdust, with eight inches of sawdust under the floor, ventilation in center of floor and ceiling, and through the building at the corner on the side, and eighteen inches of sawdust over the ceiling. My building was not as dry as it should have been, on account of not getting it built in season to dry out before I put my bees in; consequently, I have some moldy comb where I did not give enough upward ventilation to let the moisture pass off. R. R. MURPHY.

Garden Plain, Ill.

I will give you a little of my experience in wintering on the bee-quilt system: With one of my hives, I took the honey board off, and spread a strip of muslin over the top, and put the cover down over it. The others, I left the honey boards on. This one did very well for about a month, when they became uneasy. They kept on getting worse

for some time, so that I became uneasy for their safety. I concluded something must be done. I went to the hive one morning, raised the cover, and turned the cloth up at one corner. They made a bold rush for the hole, but I put the lid down and left them. I visited them an hour afterwards, and found them entirely quiet, and they have remained so ever since. Now, this was not a bee quilt such as you use, but if I had had another thickness of muslin, and a sheet of batting between, it would have been; and would it have been better or worse? J. C. ARMSTRONG.

Albion, Iowa.

What ailed his bees? Who will "guess?" What says "Novice?"

We have used frames 11 inches deep by 13½ wide, inside measure, for the last four years. In fact, all our frames are of that size, and, of course we would not object to the standard frame suggested by Galup and "Novice." But, aside from that, we think some standard size for frames should be settled upon. We have given the frames spoken of as a standard a good trial, having used the extractor extensively each season, and know the newest comb can be extracted without any danger of breaking. We were really in hopes that you would see the importance of a standard frame and help the matter along by your influence thro' your deservedly popular journal.

We have 124 colonies. Had 156 in the spring, when set out. Have doubled up to our present number. Two or three inches of snow on the 19th, and it has not gone off yet. Our bees are doing as well as could be expected, considering the weather. G. M. DALE.

Border Plains, Iowa, Apr. 22.

We give, as an offset to our friend Dale's criticism, the following extract from a letter received the same mail with his. Again we say, Who shall decide?

MRS. TUPPER.—In regard to a standard frame, would say that I cannot agree with Novice as size and shape. I once had 5,000 frames filled with worker comb, 11 inches by 13, but we have cut them all over, and now use a frame just 12 inches every way, inside measure. You could not give me a frame of any other size. So, if there is to be a standard, I vote for the foot-square frame.

Have you ever tried vanilla for bees? Last summer a candy shop in Newburgh was overrun with bees. They would eat vanilla candy that was covered with chocolate so that it would be nothing but a mere shell. Wishing some candy to feed my bees this spring, I bought some, and they are passionately fond of it. I also bought other kinds, and, placing it on the stand among them, they would not eat it until I wet it with vanilla, when they ate it in a hurry and soon had it eaten up. I now put vanilla in syrup for them, and they seem to like it very much. It makes the syrup taste more like honey. I do not know,—as I am a beginner

in the bee business,—but it seems to me that vanilla would be a good thing to scent them with when uniting colonies, etc., making them smell all alike, and less trouble about deserting the hive or fighting with one another.

Newburgh, N. Y.

M. D. DUBOIS.

The vanilla is worth trying. We have no difficulty in bees not taking candy made without flavoring of any kind. Some of our colonies will take a pound in a single night. We will try vanilla.

Friend Novice, of Medina, Ohio, seems to think hybrid bees are better honey-gatherers than the pure, thoroughbred, peaceable Italians. I will make Novice this proposition; I will send one, two, or three pure Italian queens that will produce bees easier handled without smoke than hybrids are with, to any good reliable bee-keeper. Novice shall send the same number of his hybrids, and if my bees, treated the same, will not beat his, I will miss my guess. At any rate, by doing this, and having a fair report through the JOURNAL as to which will gather the most honey, hybrids or the pure bees, it might keep us, who are interested, from leading bee-keepers astray.

A. BENEDICT.

Bees winter here well, and gather considerable honey from the 15th of April until the last of May; then, it appears, the honey season stops. There appears to be no honey in the fall. Are there no plants of which seed could be sown that would bloom in this wild climate all the season?

Crockett Co., Tenn.

A. T. HORINE.

We would advise a trial of Alsike, also of Rocky Mountain bee plants, Mellott clover, and rape. Try all, in a small way first. Undoubtedly there may be plants found that will give honey later in the season. Will some Tennessee bee-keepers advise?

Will kerosene do instead of paint outside of the hives? I understand it preserves the wood equally well; but is there anything in it injurious to the bees?

We do not think kerosene would injure the bees if put in some time before painting the hives; but they look much better painted.

Our bees are dying by the wholesale; so much rain is starving them to death. I am feeding mine, but many people do not—just let them go.

Did you ever try sweet potato for your bees? A gentleman tells me that he fed his on potatoes all winter. One colony that had hardly enough comb to hide them went through the winter safe,

and are now doing well, and had nothing but potato. He bakes it thoroughly, breaks the peeling and places it under the hive, (the common box hive), and the bees just hull it all out. This is the worst spring on bees that I have ever known.

Alcorn Co., Miss.

N. C. S.

We have never before heard of this food for bees, but it seems to possess elements which would make it valuable.

Bees are accounted as of no value in this country, for the reason they make a great deal of strong honey tasting like lobelia. We think it is made all of what we commonly call dog fennel—do not know the scientific name.

Our bees rob one another badly. If we fasten up one swarm, they begin immediately on another.

The bees commenced to carry in pollen January 5th. They have robbed more or less all winter.

Your recommendations for wintering I do not think would answer for this country—it is so warm. The bees are flying all the time, except a few weeks. Plum trees are in bloom, and pears, blackberries, and peach trees.

Lane Co., Oregon.

MRS. MARY S. POWERS.

We hear often about the little honey made in Oregon. The dog fennel here produces a pleasant honey, without any bitter taste. Can some botanist give us its botanical name?

S. A. Wilson, Emigrant Gap, California, wishes to know how to save bees from trees in the woods. Having done this frequently for myself and others, I will say, procure a movable comb hive, and proceed to cut the bee tree. This should be done about the time fruit trees commence to bloom, and on a warm day, when the bees are flying briskly, so as to have as many bees out of the tree as possible when it falls. Take out the combs in as large pieces as possible, and place them in the frames securely. Place the frames having brood together in the center of the hive, so the bees can cluster on and preserve the unhatched brood. Small pieces of comb containing brood may be placed on top of the frames, immediately over the bees, and they will come up and cluster on the brood. All the unhatched brood should be saved that can be, to keep up the strength of the colony. If there is much honey in the tree, leave the bees a few days to gather it up; if not, take them home. The next evening feed, if necessary, if there was but little comb transferred. Frames of empty comb should be given them; if combs are not to be had, feed liberally enough to cause them to build combs until the honey harvest sets in. I will give another plan I have practiced with good success:

Take a common box hive—if full of comb, so much the better—make a box of suitable size to place on top, same as surplus box. Make frames

suitable size for this box. Transfer the combs into those frames, and place them in the box over the hive. Now hive the bees, and they will pass up into the box. The combs should be laid on and held in place by a weight, then the bees can be examined at any time. If the queen was killed or missing, the bees will commence queen-cells from the larvæ. After a few days, by lifting out the frames, it can be ascertained for a certainty whether the queen is missing. If fresh-laid eggs are found, the queen is there all right. If there is no comb in the hive, they must be fed liberally, unless the bees are gathering honey at the time.

This last plan is rather old fogyish, but I have saved many a swarm, years ago, in this way. If the operator has bees in movable comb hives he can build up such captured swarms by giving them a few frames from strong colonies.

I should have added a postscript to my article stimulating bees to breed with maple syrup, as it might lead some one astray. Maple sugar or syrup will not do to winter bees on; but any kind of sweet bees will eat in the spring will not hurt them, unless they are confined to their hives three or four weeks, which seldom happens after sugar making.

A. BENEDICT.

Ohio.

Tell J. G. Thompson (page 89, April) that the comb guide of wax may be made with one-fourth his pains. A piece of lath, beveled slightly on one edge, cut a trifle shorter than the top or side of the frame on which it is to be used, greased to prevent sticking, and held in place with the thumb and finger of the left hand, narrow side next the frame, so as to make, by tipping slightly, a trough for the wax to run in, is all the apparatus he needs. It will succeed perfectly.

APIS.

Story Co., Iowa.

I live in a benighted part of the country. We have none but the common black or German bee. We have no Italians, no movable-comb hives. Many of the farmers have bees. They do not keep them, but let them keep themselves, and if the season is favorable for them to make honey, they are brimstoned in the fall in order to get their honey. The last two or three years have been very poor for honey, and a great many have died. What few bees are left wintered well this winter.

Greene Co., Pa.

LEWIS DOWLIN.

I once had a neighboring swarm of bees fighting with the first swarm I ever owned severely. I hit upon the following plan to punish them: I knew nothing about managing bees at that time, but happened to do the right way, by closing the hive so that but one bee could pass at a time. I then made a paddle by making a handle on the thick end of a shingle. The next morning, before the bees were awake, I closed the hive. I then fixed a comfortable seat beside the hive and "whacked" them as fast as they appeared. It cured them in

a very short time. I have tried the same plan twice since with perfect success. Try it.

Bees doing finely, yet there has been no day warm enough to set them out.

O. W. P.

New London, March 12.

I see an article from your pen in the *Annals of Bee Culture*, where you question the antagonism of queen bees, and invite correspondence in regard to them.

If you will take two or more queens, and place them together under a glass dish, you will soon have your doubts put at rest as to their fighting propensities, and their power to kill each other by their sting; for as soon as they discover each other's presence the combat commences, and is of few seconds duration, and the result is instant death to the one suug. When they meet, they rear up, like two dogs, and clinch, each trying to sting the other, and in the effort they will tumble and roll about until one succeeds in thrusting its sting into the other near the coupling on the abdomen, when the latter turns on her back and quivers run through, and is dead sooner than I can tell you of it.

I called on Bro. Saulsbury, a few days ago. He started in the winter with 152 swarms, and brought them all through in fine condition.

Bees have generally wintered well in this vicinity, what loss there has been being occasioned by starvation. Have heard of very little dysentery.

Sullivan, Ill.

D.

"The late Major Munn, F. R. H. S., the eminent bee-master, has been removed from us by death which took place lately, at a ripe age, at his residence, Churchill House, near Dover. The loss to apiarian science generally, and to the East Kent Natural History Society particularly, is one that will be long felt. Major Munn's zeal and success in his favorite pursuit were such as an enthusiast only could exercise and attain. His contributions to the life-history of his favorite insect, the honey bee, were as numerous as they were interesting, and were all marked by the stamp of a cultivated and active mind, and by the practical and useful nature of his observations. Of this his many valuable communications to the scientific meetings of the society afford abundant evidence. And it is a melancholy fact that the last public exhibition of his enthusiasm and zeal in apiarian science occurred at a late scientific meeting of this society. On that occasion he produced such experimental proof as had never previously appeared before any public meeting, that the queen bee, though capable of injecting poison with fatal effect into the breathing apertures of her rival in a combat, is utterly unable to injure, by puncture or penetration of the sting, any part of man or beast. The fact, if fact it be, will prove equally novel and important; for bee-masters and experimental physiologists would be able to handle queen bees with perfect impunity; and in a teleological point of view, which would have delighted Paley, he has thus advanced the opinion that the

weapon of the queen honey bee is only adapted or designed for a single and special purpose. These and numberless other kindred observations afford good evidence of the originality of Major Munn's mind, and of the great loss which the society has to deplore in his death."

We give the preceding extract from *Hardwicke's Science Monthly* in connection with the letter of "D," that our readers may hear both sides. In another place will be found an extract from an Australian paper on the subject. Who shall decide when doctors disagree?

1. I have four stocks of bees. Will it pay me better to use the extractor exclusively or not?

2. If I wish box honey, or honey in small frames, how can I succeed best in getting it?

3. Can you tell me where I can get glass honey-jars nearer than Cincinnati?

4. Will it pay better to sell honey in small jars than comb honey, including cost of jars?

There are but few bees in this country. What few there are have wintered well. I lost one small swarm by desertion this spring.

Henry Co., Ill.

J. V. CALDWELL.

1. We are sure you will get more honey, and keep your bees in better order by using the extractor.

2. To get the most comb honey, put a case over the brood chamber, and fill this with small frames. Honey made in these frames is very saleable, and you will get more under the same conditions than in the glass boxes.

3. You can get the small self-sealing glass jars of any house that sells fruit jars. Those made exclusively for honey can be procured best in Cincinnati.

4. Honey sells better and brings a better price in the comb, in small boxes or frames; but you can have much more to sell by using the extractor.

AS WE go to press we are in receipt of the following letter:

I enclose you a letter which I received by the same mail with your card, from a man of your place, who is aiming a thrust at you, and, as I believe you to be an honest, upright lady, I wish to do you the favor of putting you on the lookout.

Your friend, as ever,

Millwood, Ind.

JOSEPH MESSIMOFE.

Mr. Messimofe's enclosure was as follows:

DES MOINES, IOWA, Apr. 17, 1874.

Mr. Joseph Messimofe, Millwood, Ind.:

Str—I am collecting evidence of the swindling operations carried on in the *Queen Bee Trade*. If

you have been a victim, please give me particulars.

I enclose you an advertisement of a person who says: "We have *two hundred* (200) choice queens to be sent to agents only." Are you one of the agents?

Respectfully, &c.,

THOMAS G. ORWIG.

There were also enclosed copies of our new premium queen offer, and of a libelous, scandalous article, making grossly false charges, which was published a year ago in a little advertising sheet issued semi-occasionally in this city by Mr. Orwig. (He omits in his letter to say that he was the author of the enclosed slip, so we give him due credit).

This is only one of a number sent back to us of the same purport; and, though we at first thought them unworthy of notice, we begin to think that, in justice to our patrons and friends, we may as well speak of it in the *JOURNAL*; at least, we shall save them the trouble of re-mailing any more to us. At home, where we are both well known, this course would be unnecessary.

If the gentleman (?) has any grievance against us, it is that we could not see, as he did, the good points of hives he patented, or assisted in patenting.

We are grateful to the friends who have put us on our guard against these attacks in the dark. If they, or others who have received similar letters without reporting them to us, have any doubts of our business integrity, they may easily satisfy themselves by inquiring of any business man, banker, postmaster, or editor of this city.

WE will send to every one who renews his subscription before July, four pounds extra buckwheat, postpaid, by mail. This buckwheat was raised in North Carolina, and is desirable to plant in different latitudes. To any one sending a new subscriber we make the same offer.

WE have received several requests for the January number of the *JOURNAL*. We cannot supply them, as the entire edition was long ago exhausted.

Miscellaneous.

BEST TIME OF YEAR TO SHIP BEES.

Having received a large number of letters asking the above question, I will give my own experience and what I know of others shipping bees during the last year. When the weather is very cold the comb is very brittle, and a slight jar, even, will break it, and especially when filled with honey. Bees are easily chilled, and when in this condition are helpless; and in case the comb should break are almost sure to be drowned in the honey, and the queen lost or injured, so that she becomes worthless. This is the reason why so many colonies are lost when shipped during the cold weather, and should they get through alive will frequently not recover during the entire season; and often have to be taken from their hive and put into another or united with another colony to save any of them. Colonies that were shipped late in the season—some as late as the first of August—gathered more honey and were in better condition to winter than those shipped too early in the spring. When the weather is warm and the comb full of young brood, it is much stronger, and with proper ventilation can be shipped with perfect safety. A colony of bees, to be properly prepared for shipment, ought to have a young queen, plenty of sealed brood, a few working bees, and enough honey in the combs to do them while on their journey, and shipped at a time when honey is abundant in the fields at the place of their destination. A colony prepared, in this way, and shipped at this time of the year, in a very few days after they arrive, will hatch out a large swarm from the brood, and the young queen, being healthy and prolific, is capable of and will lay an egg in each cell as fast as they hatch. It is variously estimated that the queen will lay from two to

four thousand eggs every twenty-four hours, and these eggs will hatch in twenty-one days, and to the surprise of the purchaser, he will very soon get a very strong colony of bees, and if honey remains abundant in the field, his colony have in a few weeks gathered from thirty to perhaps one hundred pounds of surplus honey, if he has given them sufficient room; if not, they will swarm, and he will find on examination that they have an abundance of honey for their winter supply, and have more than paid their purchaser in rich honey for the money expended for them.

A strong colony of bees is capable of gathering a large amount of honey in a very short time, where honey is abundant in the fields. For, in many places in the States, bees gather all their surplus honey from the linden, and this never lasts to exceed two weeks; and they have been known to gather more than 100 pounds of surplus honey in that time in Texas, and when the extractor has been used, as high as 300 or 400 pounds have been taken from one colony.—*Colorado Farmer.*

WILL IT PAY TO KEEP BEES IN COLORADO?

The following statement is from the hand of a well known farmer residing seven miles south of Denver, and speaks for itself on this subject. He says:

"In the spring of 1872, I had two colonies of bees. On the 15th of September, same year, I had increased them to ten colonies, and they were all full of honey and averaged seventy-eight and one-third pounds each, besides one hundred and fifteen pounds of box honey taken from them during the season. PETER MAGNES."

During the present season bees have been imported and sold to different persons, who live along the foot hills of the mountains for more than one hundred miles from Denver, south, and they have, in every instance, so far as heard from, done remarkably

well, even exceeding the most sanguine expectations of the purchasers. So far as tested, this territory far surpasses any of the Eastern States in the production of honey or increase of bees. The bees seem to work every day about the same, and the apiarian is seldom, if ever, bothered with robbers, in examining a colony for any purpose. The moth miller has not yet made its appearance in this territory. Nor need the appearance of the miller be any terror to the apiarian who understands his business, under the present system of movable comb frames. The profits of bee culture in this territory must be apparent to any one, and far exceeds any other business, for the amount of capital invested. Bees will gather more honey and increase faster here during the season than in any locality with which I am acquainted. As to the variety that ought to be imported, there is no question. The experience of the last few years has settled this in favor of the Italian, which has proven to be more gentle; less liable to sting; easier to handle; staying on the combs better while handling; gathering more honey, and increasing faster than the black bee, which is of a wilder nature, and more easily frightened or driven from the combs, and when in the same apiary is almost helpless, being much weaker than the Italians, and liable to be robbed by them.—*Colorado Farmer.*

PRUNING BROODS.

Pruning brood combs is generally quite unnecessary, in fact is more often injurious than otherwise. If they ever require excision, it can only be when they are so over-charged with pollen as to render breeding impossible, in which case the operation should be performed in the spring. Pruning them after the bees have swarmed and cast is very unwise for several reasons. First, there is a possibility that, during a glut of honey, the bees would build drone comb exclusively, if any; second, that having to replace the ex-

cised comb, they would build drone comb, they would be less likely to yield a surplus in their super; and, third, there is the undoubted fact that bees winter much better in old combs than in new ones, because, being coated with so much silky fiber, they are the warmer of the two; and, again, there is the chance that in an unfavorable season they may be unable to build any comb at all.—*British Bee Journal.*

WE are glad to acknowledge the receipt of papers published at Melbourne, Australia. Among other interesting articles we find the following:

“At the Canterbury meeting of the East Kent Natural History Society, Major Munn, having brought no less than twenty-four live young of that important insect, the honey bee, gave practical demonstrations of the following fact:

“Major Munn proceeded at once to give very strong evidence in favor of the fact that the queen bee does not and cannot sting. The most conclusive evidence in favor of this fact was afforded by the handling of the queens both by the Major himself and by other members of the Society; for in no case did these insects sting; not from a want of will to do so, however, since they were seen to put out their stings and attempt to inject their poison into the hand which held them in captivity. But in no case were they able to penetrate with the sting the skin of the human body.

“Major Munn then referred to the comparative structure of the sting in the queen and worker bees, held as affording an explanation of the inability of the queen to sting. As shown by Mr. George Gulliver, Jr., the sting of the worker is very sharp, straight, and provided with from eight to ten barbs, whilst the sting of the queen is curved much blunter, and provided with but few barbs.

“It having been stated that the queen bee is unable to sting, the ques-

tion naturally arises, 'But how does she kill her rival, since it is a well-known fact that two queens will fight like game cocks?' This question the Major proceeded to set at rest practically by putting two queens together in a glass bottle, in order that their fighting might be witnessed by the society.

During the fight, which was watched with the most intense interest, each queen was seen to attempt to disable her rival as much as possible, by means of her powerful mandibles, an account of the structure of which has been given by Major Munn. At the same time she feels about with her sting, which is totally unable to penetrate the integument of her rival, till she finds one of the spiracles, that is, one of the respiratory apertures of her rival through which she injects her poison, with a rapidly fatal effect, into the respiratory system.

"During the progress of the fight, which occupied some time, Maj. Munn gave a most amusing account of the tricks of T. Wildman, who flourished during the latter part of the last century, and had at that time the reputation of having the most surprising command over bees. He was accustomed to exhibit himself, surrounded with his bees, before the king and divers of the nobility. 'Thus fortified, the bull dogs have been set at him by his own desire, when he repulsed them by detaching one or two bees, to the astonishment of all who have seen him.' He was offered a hundred guineas as a reward if he would disclose the secret, which he refused to do. All the tricks of this man were explained by Maj. Munn. Wildman's apparent command over bees was simply owing to his using only queen bees, and these could not sting him. Possessed of his secret, he could handle the bees fearlessly, and detach them against the dogs, who, when the insects were entangled in their hair, were frightened by their buzzing."

ANTS AND APHIDES.—A singular fact connected with the ant and the aphid has lately been brought to my notice, which, if it has not been already observed, may be worth recording. My informant (a Brighton florist) assures me that he has frequently observed the ants carrying down the aphid from the upper part of the plants to the bottom near the roots, and that a great number of them may be seen at times on the mold around the root, and even in the entrance to the ant-holes in the flower-pot, the lower part of which, being sunk in the mold, the ants find their way through the hole at the bottom to the top of the pot;—can it be to give the ant more ready access to the aphid, in order to collect the honey when ejected by the latter?
— T. B. W.

One correspondent complains that since her address was given in the JOURNAL her correspondence has largely increased. She says: "Circulars purporting to sell the most superior hive—*just the one for me*—have commenced coming and *still they come*, consequently the home folks are having a sly laugh at my expense." Is this an argument *for* or *against* giving addresses in full in the JOURNAL?

We assure our correspondent that her address was put in by accident. Still, perhaps she was the gainer by the mishap. Information is desirable on all subjects, Why object to it regarding patent hives?

NOTICE.

WE have sent Alsike clover seed to every one who has ordered it up to April 25th. If any have not received it, we hope they will send postal card informing us of the fact.

WILL the friend who wrote to us about Meliott clover seed report to this office? We have lost the address.

WE are compelled, for want of space, to lay over several interesting communications until next month.

NATIONAL BEE JOURNAL

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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.

ITALIAN QUEEN BEES



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

T. N. HOLLETT,
Pennsville, O.

2-1y]

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

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 Brahmas 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

Get the Best!

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, White-side County, Ill. 4 6t

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. Novice Queens, \$1. A. SALISBURY, Camargo, Douglas Co., Ill. 4-tf

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.

NO BEE HIVE FIXTURES!

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

BEES! BEES!

Choice Colonies Only \$25

Strong Nucleus Colonies, \$15.

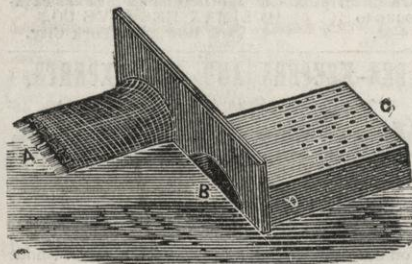


We have a few choice colonies of bees for sale, prepared for shipping as early as the weather will permit. Price in nice

Movable Comb Hives,

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

Found at Last!



THE GREAT DESIDERATUM! NON-SWARMING ATTACHM'NT For BEE HIVES!

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

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

Send for Descriptive Circular. [2]

FRESH EGGS

For hatching, from first-class premium fowls.

Per Dozen of 13.

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

Address E. J. WORST,
New Pittsburg, Wayne Co., O.

12 tf

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

A. BENEDICT,

Importer and Breeder of pure

ITALIAN BEES!

Completely isolated from other Bees, on

Kelly's Island, in Lake Erie,

Twelve miles from main land.

FULL COLONIES FOR SALE.

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

I also breed

THE AMERICAN WILD TURKEY

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

For further particulars address, with stamp,

AARON BENEDICT,

2] **Bennington, Morrow Co., O.**

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

New Verbenas!

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

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

DISSOLUTION AND REMOVAL.

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

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

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

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

BEES! BEES!

Choice Colonies Only \$25

Strong Nucleus Colonies, \$15.

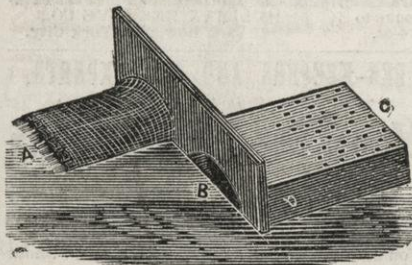


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LEWIS ELLSWORTH, Prop'r,
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I have a general nursery stock including apples, pears, plums, cherries, grape vines, raspberries, blackberries, strawberries, gooseberries, currants, etc., ornamental and 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. 4-tf

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The newly introduced

Curculio-Proof Native Plums

Furnishes good fruit in abundance from June to November.

DE CARODENCE, Ripens in JUNE.

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NEWMAN, Ripens in AUGUST and SEPT.

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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.—Clons for grafting of 12 improved native varieties can be furnished. Address for circular and price list.

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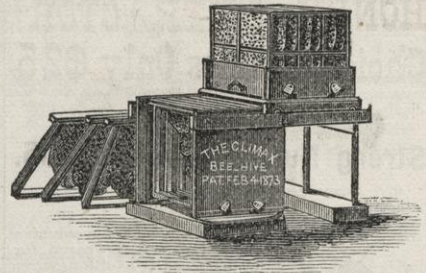
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As good as the best, simple, durable, and cheaper than dirt. Made by KRUSHK BROS., Berlin, Wis. 4tf.

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 apiarian supplies. Also, agent for the NATIONAL BEE JOURNAL. Send for circular and price list for 1874. Address A. J. HOOVER, Plymouth, Lu-erne Co., Pa.

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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. Territorily 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
CLIMAX BEE-HIVE CO.,
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BEE-KEEPERS AND BEE-EXPERTS,

The Coming Hive is now among you!

Maner Bee-Hive and Trap

Patented April 15, 1873.

Gray-haired Apiarians 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.

DR. S. T. DAVIS,

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Millersville, Lancaster Co., Pa.

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A NEW MONTHLY MAGAZINE.

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ITALIAN BEES!

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

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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. 4tf.

TAPE-WORM REMEDY!

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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Italian Queens.

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

SEED FOR GRANGES!

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

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TO SOUTHERN BEE KEEPERS.

PURE ITALIAN BEES!

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

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



1874. 1874.

GLEN APIARIES

500 HONEY EXTRACTORS, | 300 GERSTER'S WAX EXTRACTORS,
2,000 HOME-BRED ITALIAN QUEENS

Also,

IMPORTED QUEENS, HONEY KNIVES
And Apiarian supplies at

Bottom Prices.

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

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

W. E. Flower,

Breeder of

CHOICE LIGHT

BRAHMAS!

SHOEMAKERTOWN, PA.

EGGS FOR HATCHING, FIVE DOLLARS
PER SETTING.

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BEE MILLER!

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

CARY'S

Soluble Ink Powder.

For Schools, Offices, Traveling Agents, and all wanting an

INSTANT AND ALWAYS READY INK.

One box, which can be carried in the pocket, will make a pint of

Best Black Ink

in five minutes. Just the thing for Farmers and Schools in winter time as ink made from this powder

Does Not Spoil by Freezing.

E. R. CARY, Wholesale Druggist,
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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-Veils; 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 Hamourg, Black Spanish, Gray Dorking, Silkey White Gunneas, 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.

Packing Unsurpassed.

C. W. HEATON,
Farmington, Ill.

Beautiful Ever-blooming

ROSES.

Strong Pot Plants,

Suitable for Immediate Flowering. Sent Safely by Mail, post-paid.

Five Splendid Varieties, Purchaser's choice, \$1; 12 do., \$2.

For 10 cts. additional, we send

Magnificent Premium Rose.

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., is now ready, and will be sent FREE to all who apply.

The Dingee & Conard Co.,

Rose Growers,

West Grove, Chester County, Pa.

5tf.

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

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

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

Alsike Clover seed, 40 cts. per pound.

Neat Honey Extractor gratis to every purchaser of Queens at above rates.

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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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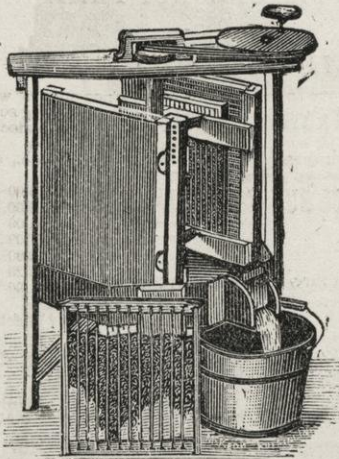
Canvassers wanted everywhere.

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HONEY EXTRACTOR!**

PATENT



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Necessity the Mother of Invention.

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Those desiring 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—

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

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[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

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THE WELL KNOWN IMPORTER.

Stocks of pure Italian Bees and Italian Queens
Write for Price list to **CHAS. DADANT,**

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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.

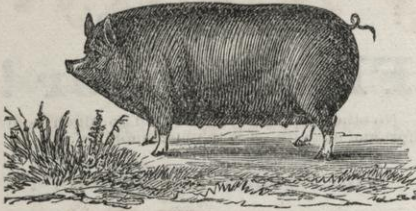
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Apiary & Poultry Yard

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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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OF THE PUREST TYPE.

FIVE DISTINCT FAMILIES.

IMPORTED STOCK.

Stock from the pens of our best home breeders.

NONE BUT FIRST-CLASS PIGS SHIPPED.

Orders booked in rotation.

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Glen Farm, Humboldt, Iowa.

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Early Queens!

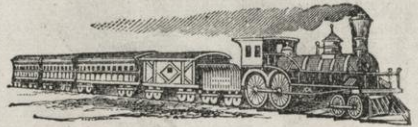


Sent in large boxes, with a pint or more of bees, at \$10 each. We have a few of these put away especially for those who desire them sent very early, before black drones appear. Sent after May 1st, \$8. These queens sent with a small colony of bees, from which two nuclei can be formed at once, \$15.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

ITALIAN BEE CO.,

Des Moines, Iowa.

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KEOKUK & DES MOINES RAILWAY.

No. 126.		TIME TABLE.		1874	
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 "	9:46 "	
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 "	4:80 "	Des Moines,	7:15 p. m.	6:00 "	
8:00 "	4:10 "	lv Des Moines ar	6:45 "	5:15 "	
10:45 "	6:35 "	Perry,	4:50 "	2:20 "	
12:00 "	7:45 "	Gr'd Junc.	4:00 "	1:00 a. m.	
	10:15 "	Ft. D., 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.

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

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

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

Queen City Apiary.

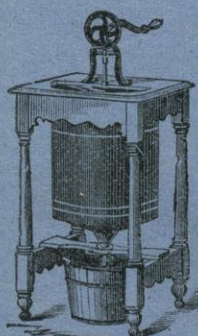
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GEARED ROTARY

HONEY EXTRACTOR!

FOR 1874.



No. 1



No. 2.

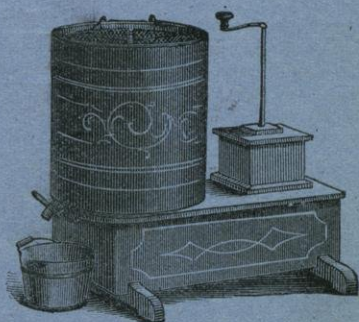
Manufactured under Letters Patent, granted January 7, 1873.

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

500 Now in Use!

And the best of satisfaction is given.

Our New Honey Extractor No. 3.



The QUEEN CITY.

(Patent applied for).

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



We also present a

NEW HONEY KNIFE!

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

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