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VOL. II

No. 12

# THE BEE-KEEPERS'

INSTRUCTOR.



WEBSTER THOMAS, Editor.

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## To The Reader.

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Of this number of the INSTRUCTOR we send out hundreds of copies to persons who are not regular subscribers. Yours, reader, is one of them; and we hope you will give it a careful examination, feeling assured that it will not suffer by comparison with any other bee journal published, no matter what its price. We wish to greatly extend its circulation for 1881, and invite your co-operation and assistance in so doing. Should you not feel able or willing to spend even the small amount of money asked for subscription, or if you desire to earn some money in a light and pleasant way, your attention is called to the offers made below, whereby you may earn a handsome cash commission by working for us, and secure the INSTRUCTOR without the expenditure of any money. If you do not feel interested enough in this matter to work for us, you will greatly oblige us by handing this copy of the INSTRUCTOR to some one whom you think will.

## Great Offers to Agents.

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We think our friends and subscribers, and all who have seen the INSTRUCTOR heretofore, will acknowledge that we have fulfilled our promises of last month in regard to improving it, both in general appearance and quality of contents. Although we have secured an able corps of correspondents, including some of the leading apiarists of America, and gone to considerable expense in various ways to improve and extend its scope of usefulness, we will not do as a certain other 50c. bee journal did (raise the price to \$1.00) but will continue to publish it at 50c. per year, as heretofore. We wish to bring it to the notice of every bee-keeper in America, feeling confident that where it is once known it will always be a welcome visitor, and for this purpose we will send it on trial three months to any address for 10c., and offer the following inducements to getters-up of clubs. Surely no bee-keeper need do without bee literature, when less than the value of one pound of honey will get a first-class bee journal three months, or two or three pounds get the same for a year:

For a club of four 10c. subscribers we will give an extra copy of the INSTRUCTOR 3 months to the agent.

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For a club of fifteen 10c. subscribers we will give an extra copy 1 year to the agent.

Or for a club of three subscribers at our regular rates, 50c. per year, we will give the agent an extra copy 1 year.

The first three offers apply to new subscribers only, as we do not send the INSTRUCTOR on trial except to persons who have not heretofore been taking it. Anyone, however, may act as agent; and we hope that all of our subscribers, both new and old, and all who receive this number, will avail themselves of the privilege. Any agent wishing to work for a cash commission can retain 30 per cent. of each subscription he may take—that is, 3c. on each 10c., and 15c. on each yearly subscription—which will certainly pay anyone handsomely who will work for us. Specimen copies sent on application. Address

**W. THOMAS & SON,**

Pub's. Bee-Keepers' Instructor,

ADELPHI, ROSS Co., OHIO.





## Bee-Keepers' Instruction.

VOL. II.

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No. 12.

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dle of each month. }W. THOMAS & SON,  
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## Our Contributors.

For the INSTRUCTOR.]

**Bee-Keeping.—Necessity of Beginning Right.—Why?—Results.**

JESSE MILLER.

Experienced Apiarists, I believe, all agree in advising the inexperienced in bee-keeping to begin with a few colonies only, at first; and if successful with these, then increase, as means and inclination permit. Look about you; see who keep bees; how they succeed, and how few get along even reasonably well, while so many fail, and you will most certainly see the wisdom of a "small beginning." Get, say two colonies, good Italians; and I would suggest spring as the best time to begin, as then you avoid the risks of wintering, until you have had time to get some idea of how to handle and care for them. Also get the best movable frame hives, all alike, so that you can exchange frames, if desired; one or more good Bee Journals, that gives each month a summary of work in the apiary, for the same, and a good book of instructions on bee-keeping, &c. Other things will also be needed as we proceed.

The advantages of movable frames will be seen, when, from any cause, the bees are to be examined, the queen looked for, the colony supplied with a frame of brood, or honey, in uniting or dividing, artificial swarming, &c. Don't be persuaded to use any other, or hives requiring different sized frames; or none

at all.

Provide a smoker—the best—(they are not all the best, if they are so recommended), a hat, or bonnet, a good veil, and gloves. But if you can get along without these, do so, and such other protection as is needed. Also get a few tools, such as knife, screw-driver, or chisel, to loosen frames, mats, &c. Now try your hand. Run one colony for honey, the other for increase, and you will have the same kind of experience, but not so much of it, as if you had more colonies; and one season will probably decide the question of bee-keeping with many beginners.

Remember that to "handle with care," is a Golden Rule in bee-keeping, and be sure to "make haste slowly," if you wish to make friends of the busy workers. Here is a case and how it progresses:

Neighbor, R., a gardener, was getting old, perhaps 65, and thought bee-keeping would be easy and pay besides; bought 6 swarms of Italians, at \$6 each, he furnishing his own (the chaff) hives, in 1879. They were in good trim, strong, and wintered well. He also bought 15 colonies of black bees, at \$3 each, in bad condition. Tried uniting, feeding, &c.; by winter he had 6 colonies left. The season of 1880 was not a prosperous one for him. Bees robbed, and he got but little honey, and no increase. He made a lot of hives, bought foundation, section boxes and other things not needed, and borrowed money from bank to pay for them. He knew too much, but not of a practical character, and is not satisfied.



He would like to have his money back again. This is only a sample case, and should teach the beginner caution.

Alliance, Ohio, Dec. 1880.

For the INSTRUCTOR.]

### **Moving Bees.**

J. KLINGER.

I have just got moved and things put in order; have not had time to write anything for any paper for two months, but would have taken time to read the INSTRUCTOR, had it come to hand. I do not know why Bro. Riegel did not send it; perhaps he forgot my address. But now as your card reminds me that there is a Bee-keepers' Instructor published, I will write you a short article on moving bees:

When I left Stoutsville I had 17 colonies of fine Italian bees. I call my bees my playthings, and like all children when the family moves, they want their playthings taken along; so I fastened them up, screwed their lids down, put wire cloth over the entrances, and put them aboard the cars, combs edgeways, with the long way of the car, piled household goods all over and around them, locked up the car, and I drove through in a buggy. They were from Tuesday until Saturday on the road. I took them off the cars on Saturday evening, but did not open them until Monday, when I let them out, found them all right, and was happy to know that my playthings had come through all safe. But I made one mistake. I had not prepared a place for them, so I just put them down in the yard in the most convenient place, to get them out of the way until I could place them where I wanted them. For one day I left them in the yard and they flew lively. On Tuesday I put them in their proper place, but as long as they flew they would come back to the place where they had

their first fly, nor do I know but some will stray back yet if there should come a warm day. It is a question with me, whether the bees that came back the next day, were the same that continued to come back each day after. If bees stray off once and afterwards find their own hive, I think they are not likely to stray off again, but will carefully mark the place of their home. But then it is a question, why are there bees back here every warm day, singing their melancholy notes, and making circle after circle over and around the place where their hive set at the time they took their first fly in their new home? I have come to the conclusion that a worker bee does not go out every day, when it is cool, and the honey scarce, and that perhaps so late in the season they may not leave the hive more than once in two or three weeks, and then when they come out fail to take their bearings, and so get lost from their own hive.

Bees here in the northern part of the State do not seem to have done much better than in the southern part. There is no honey in the market here worth naming, and the little there is is held high. I hear they ask twenty-five cents for extracted honey. My bees were not as heavy when I moved as they were a month earlier. Smartweed and Asters did not seem to yield honey to any amount.

Upper Sandusky, Ohio, Nov. 17th, '80.

For the Instructor.]

### **My Last Season's Experience with Bees.**

REV. A. HENRY.

There is so much written about bees, that one would think the study of bee literature for any one year, would give a person a sufficient knowledge of the ways, habits and customs of the busy little "nectar gatherers," to make bee-keeping not only a pleasure but also



profitable, securing surplus honey every year. This I believe can be done. I have only been keeping bees a few years, and have not learned all about these most interesting workers, yet I feel certain about the above statement. I may be mistaken, but if so it will only be the occasional exception, which may and does fall to every trade and vocation. At best it is always good and helpful to have a well grounded faith in your business, and then push matters. Now, Mr. Editor, and all friends of this interesting little "javelin" bearer, I do not know that my experience has been like your's or not. There has been much, of a general character, written upon this subject, yet I have always felt that I wanted to know more, and what I did want to know was not written; or, if so, I have not found it. Now I will, in this, try and be practical, and will give you and your readers the reason of my faith in the certainty of surplus honey:

Last spring I had six stands of bees—five in Combination hives, and one in the American hive. One went into winter quarters queenless and light, so I will drop this hive.

On a warm day about the first of February I went through my colonies. Three had sufficient stores to carry them through nicely; the other two reminded me of "Old Mother Hubbard's cupboard." They were cleaned out. I thought the subject over and became convinced that to save them they must be fed. I made some syrup, and fed each of these two colonies a quart a day for three days and examined them then, and found to, my joy, the hive full of eggs; so I felt, "now when spring comes with its blooms I will have a large army to gather honey for me." In due time I found the young bees showing themselves. Again I examined these two hives—found their stores short—but fine large colonies of bees. Then I thought I could raise another swarm before the flowers came,

so I fed again as before. These hatched out just as the peach bloom opened. Again I examined, and was utterly amazed, yet full of hope, to find my two hives literally jammed from top to bottom, and the little striped fellows bringing in stores from natural sources. Now I had visions of a certain supply of surplus honey. I fed again, only to hasten the queen's work of depositing an egg in each cell, so that I would get surplus honey at once. This time I fed only a short pint each day, for three days, removed the feeder and placed on four surplus boxes to give them room, and at once they went to work in the boxes, and I secured four caps of Peach and Apple bloom honey. All the while I was worried not a little. I was in the midst of an interesting experiment, yet I feared my colonies, so full now, might be tempted to swarm. Again I opened the hives, hunted long and anxiously to find the Queens, and clipped a wing from each. Now I felt easier. But I did not give them surplus boxes fast enough, as one day I heard them humming, and going to the bee lot, found them just boiling out of one of my fat hives. Well I was not long in living them, settling with a mirror. Then I went to hunt my queen, for she was minus a wing. I found her about four feet from the hive, with about a hand-full of bees clinging to her. I put her with the new swarm and all went well. From this time on my bees all received like treatment.

Now as to results: From the three stands that had sufficient stores to carry them through to the honey season, I took, during the summer, about forty-five pounds of honey. From the hives fed in February and March, and swarmed in May, the result is as follows:

The old hive yielded me a May swarm, very large. It also yielded during the season ninety pounds of honey. Then this swarm, to which I gave foundation, filled its hive and gave me about twenty



pounds of honey, when it sent out a swarm about the first of July. I gave this colony foundation and fed it some, and it went into winter quarters rich. In all—from this hive—I have three good colonies, and a yield from the same during the season, of one hundred and ten pounds of excellent honey. Now the other hive I fed did not swarm; yet it was so full of bees that they could not all get in the hive. Even a dashing rain could not send them in. So I took, during the summer, two frames and brood and bees out, and gave to my weak and queenless swarm. Then I took from it during the season one hundred and eighteen pounds of honey.

Now anyone can count the cost of a few pints of syrup and contrast it with the larger amount of honey secured. and can ask, did it pay? I feel assured that any one can secure a large supply of cap honey, or surplus honey; but dear friends, let me tell you that in February and March your attention and care of your bees weighs out the number of pounds of honey you get in May and June. If my experience last year will benefit any of your readers I shall be glad. I know it is an experience I shall profit by next season. It fills that hungry gap that the general bee literature did not supply.

Hallsville Ohio, Dec. 1st, 1880.

We would like to hear more from you, Bro. Henry, in regard to what you consider to be the principal cause, or causes, of the great difference in favor of your weak colonies; whether you attribute it to feeding, altogether, or partly to them having more prolific queens and better workers? Please tell us also as to the color and size of queens, and worker progeny, and what you think would have been the result if you had fed your strong

colonies as you did your weak ones. Also, what you think the result would have been with your weak storeless colonies if February had been a month of severe winter weather in the place of so mild and spring-like.

Your success with these two stands of bees was truly wonderful, and all the circumstances deserve much thought and consideration.

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For the INSTRUCTOR.]

### **The "New Idea."**

J. H. MARTIN.

I notice in the report of the National Bee-Keepers' Convention, and later in all of the Bee Journals, that Mr. Jones has a new plan for obtaining honey. It reminds me of the much talked-of Adair's "New Idea" plan, given to the public a few years since. The honey obtained ought to be greatly in excess of the present yield to pay us for the change to a different style of hive, and the extra labor to care for the bees. Just think of removing combs from the front to the rear as fast as filled with eggs. Why, sir, some of our queens would keep two men dusting around all the while in our apiary! For comb honey Mr. Jones might possibly get a little more surplus with a little more bee bread in it, but of extracted honey I don't believe he would get a pound more. Our hives that are run for extracting have brood all through them, and of course the honey is put near where the brood is; if it is in a two-story hive, or in a long hive, the same amount of space has to be given in either plan. All-side storing hives were discarded long ago, and methinks the middle storing plan will follow in the same road, unless it is modified or yankeeized in some points.

I wish to tell your readers how to make



a very convenient scraper for cleaning off frames inside of hives and bottom boards. Take a common mowing machine section, —an old one will do—grind the three sides to an edge; punch a hole in the centre and fix in a handle of a quarter inch iron rod, and you have as good a scraper as can be bought.

Hartford, N. Y.

P. S. I notice in your Nov. No. on page 359 an article in relation to common locust. We have the common locust and think much of it for honey, but haven't enough to get much of a yield from it. Have you the *Honey Locust*, and does it yield as much honey as the common locust? It is very fragrant and full of blossoms.

We have some *Honey Locust*, but its nature, so far as bees collecting honey from it goes, does not correspond very well with the name. So far as we know, and have noticed, it is hardly worthy of being classed with honey-producing trees. On the other hand the common or black locust will pay well to cultivate for honey alone; and while the timber is very valuable, that of the *Honey Locust* is comparatively worthless.

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For the INSTRUCTOR.]

### Blessed Bees.

A. F. MOON.

The November No. of the INSTRUCTOR has been duly received, it being the first copy of it that we ever saw. We were much pleased with its appearance.

#### EXTRACTED VS. COMB HONEY.

We notice that a writer explains in the last number of the INSTRUCTOR what he claims to be an important discovery made by himself, wherein he thinks as much *comb* honey can be taken or obtained from

an apiary as can be obtained in the extracted form.

While we regard our friend's zealously in apiculture as commendable, we must confess that we differ with him. First let us say, we have no interest in any Extractor except as to their invaluable worth in the apiary, both as a saving for the bees, and the greatest profit for the apiarist. Only a few repeated experiments is necessary to convince the most skeptical. Sometimes we may be deceived in our experiments, and form a hasty and erroneous opinion, but careful and continued experiments will always set us right. One of our first experiments made in fertilizing queens in confinement was, to us, almost positive proof of its practicability; but when we became more familiar with the nature of bees, we found out our mistake, and came to the conclusion that we should satisfy ourselves by practical experiments before we take this or that one's say so. We have made many experiments with the extractor, but will relate only one now. This experiment was made by selecting four of the strongest colonies out of about one hundred. We were very careful to choose only those possessing all the recognized good qualities, and as near alike as could be under any circumstances whatever. In fact, they were so near alike in every respect that it was difficult to determine which was best. The four swarms were all in hives of the same size and kind, with a box covering the entire top of hive, and with frames running crosswise of the frames in the body of the hive, which was ten by fifteen, with eight frames to the hive. To two of these hives we placed guide combs in their boxes—gave them a good start, and placed them upon their hives, taking off the honey board and giving the bees free access to the boxes. They filled their boxes with bees at once, and work commenced vigorously. To the other two stands we gave boxes of full combs, and treated as



the two first. The result was, the boxes with combs in were filled twice, and about one-third again, and emptied with the extractor, while the hives that were left to build their combs had not quite filled their's once. Now, this is all consistent enough when the apiarist properly understands the time required and the number of bees necessary to elaborate the wax, while those with good combs have only to load up and unload, and must necessarily have more than double the advantage, and will very easily store up more than double the quantity of honey.

#### TO PREVENT SWARMING.

The theory to prevent swarming, given in the same article, reminds me of the moth proof hives we have heard so much about. It might work one time in twenty, but we are of the opinion that more injury would be done than good accomplished, which we will try and show at some future time.

#### IMPROVED RACE OF BEES.

In the same journal one writer states that "to obtain the best results we must possess the highest grade of bees that it is possible to obtain." His object is to elevate the race. This may be well enough, and looks very nice in print, but with a knowledge of apiculture in this country we are led to ask the question: Is this theory carried out, or can it be successfully, when so many of our queen breeders are flooding the country with untested queens? And yet they wish to "elevate" the race of bees so that everybody may have only the best. This reminds us of an anecdote we heard when a boy, and you will pardon us if we relate it. A speaker upon a certain occasion picked up a book lying before him, opened it and closed it once or twice, and then lifted up his head and said in rather a positive way: "Friends, this is a *good* book and a *wholesome* book, but I declare I cannot make it all 'lay chunk,' " meaning that he could not understand it. So

it is with much of the advice we have now-a-days. It may be *good*, it may be *wholesome*, but it is hard to make it all "lay chunk." If we wish to establish the "highest race of bees" we must not fill the country with untested queens, for there is not one in five that obtains such that can tell whether their queens are purely mated or not. The purchaser feels satisfied that he has got something genuine because it came from a good man. His neighbor has, perhaps, obtained fine pure queens from Italy, or it may be has pure home-bred queens, but the purchaser of the untested queen has by *accident* got a queen impurely mated, and that, too, coming from a breeder who is zealous to "build up and elevate the race of bees." This is no new thing, but has often occurred and will continue to until queen breeders set a better example.

In the same article the writer has said considerable about queens duplicating themselves, and says: "What we want is *progression*, not duplication." He wants "to breed up to good, better, best." Now, what we want is queens that will duplicate their worker progeny, for, unless they do this they do not come up to the true standard of purity. As to queens duplicating themselves in the queen progeny it is all a humbug; and from the recent tests made by one of its advocates we are satisfied he will hereafter keep silent.

The present season in this part of the country has been one of the poorest ever known, the bees not being able to gather honey enough to even rear queens successfully, and many swarms must perish for want of food. At the present date (Dec. 3d) bees are flying as in summer. Examined a few stands and found some brood in all stages.

Rome, Ga., Dec. 3d, 1880.

Show this copy of the INSTRUCTOR to your neighbor and speak a good word—or several of them—for it.



For the INSTRUCTOR.]

### December Management.

S. S. FETHEROLF.

During this month the bees should be left undisturbed, and the bee-keeper may rest from his labors so far as his pets are concerned. If they have been properly cared for they are comfortable now, and if neglected, it is, as a rule, far better to leave them alone and not disturb them for any purpose.

We do not recommend feeding in this month, if it can possibly be avoided, but should such be a necessity, give them only dry white cream candy, thrust down between the combs just above the cluster.

We are certain that the bee-keeper who is wise will now lay his plans for the next season's work. By all means get one or more periodicals on bee-culture, if not already provided for, and arrange for hives, surplus boxes and frames; and do not forget to learn the operations of successful bee-keepers. There are about a dozen bee journals published in the United States, all first-class and reliable. But little choice can be made, as each one of them is worth more than the price asked for it.

The front of each hive should be protected by placing a board so that snow and sleet cannot clog the entrance and prevent the little workers from clearing the bottom board of dead bees, etc., which they are sure to do if the hive is healthy.

To the readers of the INSTRUCTOR of the past year, I will say that work, unceasing work, is the only road to success in bee culture. Be not discouraged when we have unproductive seasons, but study to overcome, by sowing for a succession of honey crops. If you have been benefited by the few hints given in this paper I am happy. With this issue my connection with this journal is severed, for the present.

Wishing you all may be happy and

successful in your calling, and especially in apiculture, I bid you all adieu.

Glen Apiary, Palestine, O., Dec., '80.

For the INSTRUCTOR.]

### Unprofitable Honey Seasons.

S. S. FETHEROLF.

The past season has been the most unfavorable to the honey producer that we have known for years. Through central Ohio the white clover was abundant, but during its bloom no honey was secreted, being too dry. The fruit blossoms furnished large quantities of choice honey, but the harvest was of short duration. The black locust was the most profitable honey crop, and the best we had this season. Sweet clover was very productive, and also very scarce, in this locality. Catnip was similar to sweet clover, in both quantity and quality. To the generally known goldenrod I can give no credit for honey, as it blooms too late in this part of Ohio—hardly opening its yellow beds until the frost places it *hors de combat*. The question I wish to offer is this: "What succession of annuals and perennials shall we sow and plant, to secure the entire season for the gathering of honey?"

As long as I have been a resident of Pickaway county, Ohio, I have not seen or tasted of a single pound of buckwheat honey. Passing along a field of that cereal a few years ago, in May, I observed it in full bloom, and took the trouble to examine it. I failed to find one solitary honey bee, although hives of bees were within half a mile, and the dew was on the grass, showing that the sun had not evaporated the honey, if there had been any. I have tried mignonnette, but the seed costs too much, although it is a good honey plant.

Our bee-keepers are talking queen-rearing too much. Almost every bee-keeper of any prominence is rearing queens.



The main topic for discussion at the National Bee-Keepers' Convention, held at Cincinnati in September, was queen-rearing, quality and long tongues, Bands and general appearance of queens, how to fertilize properly &c., &c.; just as though nothing short of all these fine points could possibly suffice for good honey gatherers. The best colony I had in an apiary of seventy-five stocks, several years ago, was a vicious hybrid, but I managed to secure 280 pounds of extracted honey, if I did have to fight them while getting it; and to-day it is the most populous stock I have among twenty-five.

We must look to our honey resources in connection with the other branches of our calling as bee-keepers. Let us hear from others on this important subject.

Palestine Ohio.

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[Stock Farm and Home Weekly.

### **Success in Bee-Keeping.**

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At the bee-keepers' convention at Indianapolis, Indiana, the following interesting essay was read by Rev. M. Mahin, of Langsport, Ind.

As this is a convention of bee-keepers, I presume that all are interested in the best means of securing success. And though I do not pretend to rank with the great bee-masters of Europe and America, I think I can make some suggestions which will be of advantage to those who have had less experience than I have had.

I began bee-keeping ten years ago, and I have been an amateur and enthusiast ever since. I have read nearly all that has been written or published in this country on the subject, and have had a somewhat large and varied experience.

I have given everything pertaining to bee-culture very careful attention, and I have been as successful as any of my acquaintances who have been in the business. There was a time when I was

more ready to dogmatize than I am now. Experience has taught me to be more modest in my claims as to my knowledge and mastery of the subject.

The first thing necessary to bee-keeping is a hive. Bees cannot be kept without something to keep them in, and experience has demonstrated that in these wide-awake times, when competition is so sharp, it will not do at all to keep bees in the old box hives and log gums. We must have movable comb-hives, and to be successful we must have the best attainable. I shall not enter largely into the discussion of the hive question. There are many good hives now before the public, and any of the good ones will answer the purpose. I would not advise any one to pay for a patent right. Everything necessary to a good movable comb hive, is now, and has been for years public property, and the patent features of the most, at least of those that are still covered by patents, are attachments that may be left off, not only without detriment to the hive, but with positive advantage. The simplest form of movable comb hives, in my judgment, is the best. I want no moveable sides, no metal corners, no moth traps, nor any other expensive and useless attachments.

The next requisite to successful bee-keeping is bees. A man who has no bees cannot keep them, though he may have ever so good a hive, and there is a great difference in bees as well as hives. There is a difference in the quality and profitability of different families of black bees. Some are more vindictive and more difficult to manage than others. The difference is not only in the treatment they have had, but in the blood. The same is also true of Italian bees. While as a rule they are more peaceable and every way more easily handled than black bees, there are exceptions to the rule. Occasionally we find a colony of well marked and apparently pure Italians that are crosser than the average



blacks, with this difference, that they are quiet and peaceable until they are disturbed.

Having had nearly ten years experience with Italian bees, I give them a decided preference over the black race, and advise all who have not already done so, to get them. And as there is a great difference in the qualities of the different strains of Italians, get the best, without regard to expense, and keep no others.

In successful bee-keeping, more depends on the bee-keeper than on the hive or the particular strain of bees. In order to succeed in this pursuit, a good degree of intelligence is indispensable. But a man may be intelligent in other things, and yet a flat failure as a bee-keeper. He must become thoroughly acquainted with the natural history of the bee. He must become so thoroughly acquainted with bee instincts as to know with approximate certainty just what the bee will do in any given circumstance. He must be familiar with the entire internal economy of the hive, so that if anything is wrong he can ascertain what it is and apply the remedy.

I do not believe that any one will succeed as an apiarist who has not a general love for bees. The successful bee-keeper must feel enough interest in bees to know at all times, winter and summer, their exact condition; and he must be careful to do for them what needs to be done, and do it at the right time. If bees are to be left without attention other than to "rob" them when they have more honey than they need, then the best hive—beyond comparison the best—is a section of a hollow tree, with a board nailed on one end for a honey board, and a box on the top for surplus honey. People who have no skill in handling bees should adhere by all means to the old methods.

The following article on the subject of Bee Pasturage was read before the late North American Bee-

Keepers' Convention at Cincinnati, by the Secretary of the Convention. The subject is one that merits consideration by bee-keepers everywhere, and will no doubt receive more and more attention as bee-keeping advances and assumes a more permanent position as an industry of the country:

### **Bee Pasturage.**

L. H. PAMMEL, JR.

*Mr. Chairman and Gentlemen of the Convention:* As our honey crop mainly depends on some honey plants, it necessarily follows that our bees should be provided with them, so that they can collect nectar from early spring to late autumn. These plants should be kept in abundance so that when there is plenty of saccharine secretion in them the bees will not be obliged to stay at home.

Many bee-keepers think no more about bee-pasturage than they would of feeding the beautiful songsters of the woods. "Tis true" they may believe there is an abundance of honey plants growing wild, under the best circumstances that nature will permit. Though this may be so with many localities, it is not so in all places. While the basswood may grow with great luxuriance here, and the bees get a good flow of honey, a few miles further on there may be none of it. Where field flowers full of rich honey are in abundance, bees will commence to gather surplus early in the season.

All kinds of honey plants are not favorable to all localities; the basswood will not grow where it is wet and marshy; in such places the willow, maple, goldenrods, and spanish needles grow abundantly, and in such localities bees may have very little surplus in the early part of the season while in autumn they will have every cell filled with the most



delicious honey. The white clover is fast becoming the best honey plant, for it is genial to nearly all soils and can be found everywhere, along the road-sides, in the meadows, and in the pastures, and in my opinion it blooms longer where cattle are herded than elsewhere.

About 20 rods from my apiary is a field of 130 acres, used for herding cattle, and to-day the white clover is blooming with the same luxuriance that it did in June, and the bees are filling their hives with honey gathered from it. There are years when the white clover has yielded no honey and bees have had to gather from other sources. As bee-keeping is fast becoming one of the great industries of America, we must provide our bees with ample bee-pasturage; if not limited to a few kinds, let there be great variation in the time of bloom. When the season is wet, white clover contains no honey; then buckwheat and borage must supply its place; the latter I believe is one of the most productive honey plants we have.

Let every bee-keeper produce as much honey as possible, so that others may be induced to recuperate, and that they may have pleasure as well as profit.—Virgil says:

"The gifts of heaven my following song  
pursues,  
Aerial honey and ambrosial dews."

LaCrosse, Wis., Sept. 19, 1880.

For the INSTRUCTOR.]

### **Black Bees in Italy.**

CHAS. DADANT.

The assertion of Mr. Jones, at the Convention of the American Bee-Keepers' Society lately held in Cincinnati, "that he had seen black bees in Italy," is altogether at variance with the writings of the numerous correspondents of the Italian Bee Journal, *L'Apicoltura*, and especially with one of the best known and respected bee-keepers of Milan, Dr. Angelo Dubini,

who is one of the founders of the Bee-Keepers' Society for the advancement of bee-culture in Italy, of which he is treasurer. Dr. Dubini has made extensive trips over the whole Peninsula of Italy, visiting apiaries in every part of the country; yet he asserts that he has everywhere found only the pure yellow bee.

Prof. Mona, a noted queen breeder of Italian Switzerland, has also journeyed along the Italian coast from Piedmont to Venice, and around the whole Italian Peninsula, stopping at every landing. On his return he wrote in the Journal, and told me also, that he had found only the pure Italian bee at every point on the coast.

Another assertion that I notice in the report of the Convention is, that dark or leather-colored Italians are "always ready to fight," and are full of vindictiveness. I do not know what kind of bees Mr. Demaree, the writer of the article, has had in hand; neither how he managed to make them so cross; but notwithstanding this report I assert without the least fear of contradiction by our numerous customers that all the workers of the queens that we have imported are very gentle to handle. I can also vouch that most of our customers consider the leather-colored bee, generally speaking, superior as honey gatherers, and more prolific than the light yellow kind. I could, if necessary, produce scores of letters from our customers, ordering positively, after experience, the dark instead of light-colored queens.

### **THE PERFORATED ZINC.**

At the Bee-Keepers' Convention recently held at Cincinnati; Mr. Jones, of Beeton, Ontario, explained an important discovery made by him for obtaining surplus honey in the brood chamber. It consists of a division sheet of perforated zinc going across the hive and removable at will. The perforations are of such a size that the worker bees can pass through but the queen cannot.

This perforated zinc was described in

the Bee Journal, *L'Apiculteur*, of Paris in the March No. for 1865. The Abbot Collin was the inventor, and announced his discovery in the third edition of his *Guide*, published in 1865. Since that time the perforated grates are offered by every seller of bee-keeping implements in France.

Mr. Jones says that these perforated sheets can be used to prevent swarming. Their prevention, however, is attended with one unavoidable and undesirable result, that of the killing of the queen by her angry bees.

Hamilton, Ill., Dec., 1880.

## Letters.

HERRING, ALLEN CO., O.

*Editor Bee-Keepers' Instructor:*

This cold snap has caught me with my bees on their summer stands. The mercury fell 12° below zero this morning. I had taken off the honey boxes, and put honey cloths on every hive, and had everything arranged to house by the 16th. On that day a little snow fell, and I tho't I would wait to give the bees a fly, when lo! and behold! more snow fell, and it continued to get colder and colder, and to-day my bees are all draped in snow and I dare not molest them. I will house them on the first warm day, and no doubt will lose some. I have not done as well as I knew how, but will try and profit by this experience.

Enclosed please find \$1.25 for INSTRUCTOR and *Bee-Keepers Magazine*.

You will hear from me again soon.

Yours Truly,

Nov. 22, '80. JACOB L. BAKER.

HARVEYSBURG, WARREN CO., O.

*Editor Bee-Keepers' Instructor:*

In your 'greeting' you invite correspondence from bee-keepers. But if all should avail themselves of the opportunity I fear you would not have room for them.

But I will write anyhow, as I wish to ask some questions.

I went into the bee business in a small way early last spring, thinking it would be best, as I was a beginner, to commence on a small scale. I bought three swarms, one of which died. I transferred in May into Royal hives, and they seemed to do pretty well all summer, although they made no surplus honey or increase. Cold weather set in last month, and I put the outside caps on; but there are a good many dead bees at the entrance every time I look. It makes me think they are going the way of all the earth. But I will ask a few questions and learn all I can:

1st. Do bees keep up a brood nest all winter, or do they live through the coldest weather in a state of inaction?

2d. Will it do to move small, light swarms to a room well lighted, where there is a fire kept part of the time? Or would they leave the hives and not go back?

It seems to me that the bee business is not half learned in this section, or it has been a bad honey year, or something wrong, for nearly all persons I inquire of who have kept bees in the common way for twenty years or more, say they discover some features about them they never knew before. Although it has been a bad honey year, one says he found plenty in one box where they had died. I suppose one-third of the swarms in this section will not winter from one cause or other, from the information I can gather by inquiry.

Tell "Mr. Twain" that we think his result is enormous, and some think fabulous; but I am not experienced enough to give an opinion, though I think he would not winter any bees in this locality if he required a yield of 30 lbs. of surplus honey to each colony, or, in many cases, any at all.

I would like to live close to some one who gets a heavy yield; then I might



learn faster. I want to Italianize my bees next season, although they are hybrids.

I think Mr. Dalzell right about two queens to one hive sometimes. I am of the opinion that that is why some hives are more populous than others. I also feel convinced that we ought to breed from home-bred Italians, as Mr. Riegel recommends. But perhaps I have written too much for your patience, so I will close.

Yours Respectfully,

Dec. 3d, 1880.

M. M. HARVEY.

We are glad to hear from you, Bro. Harvey, and although you are a beginner we see you possess a laudable spirit of investigation. We will answer your questions briefly:

1st. As a rule bees do not keep up brood rearing through the winter. If they are favorably situated, that is, warm and comfortable, they will raise a little brood perhaps every month through the winter. The amount of brood, however, under the most favorable circumstances, will be very little during the months of December and January. A certain amount of heat is absolutely necessary to the hatching and rearing of brood, and this cannot be kept up during cold weather, except to a very limited extent in the center of the hive. Bees that are in comfortable quarters do not by any means remain inactive during cold weather. They, however, cluster together closely and only move about sufficiently to get their rations as needed.

2d. You should by no means move either a light or strong colony into a lighted room, as they will leave the hive and not get back

again. It would be bad to move them into even a dark room, unless the temperature is very evenly kept. They might do very well during extremely cold weather to be moved into a very dark room, if done very quietly, and then moved out on their summer stands by the time the thermometer marks about 40°, or even at the melting point, which is 32°. But if moved at all during the winter season it should be done so quietly as not to disturb them, and cause them to fill themselves with honey.

As to two queens in a hive we believe such instances are frequent, but we don't think this is why some hives are more populous than others, from the fact that we have never known or heard of two queens working harmoniously in a hive for a sufficient length of time to make such difference. We know that two queens may be in different parts of a hive for a short time, seemingly unaware of the presence of each other; but there really is no division of authority, or unity of the Royal prerogative, and what seems to be so will be of short duration. If anyone has personal knowledge of a case where two queens have worked together harmoniously in the same hive for any great length of time, we would be pleased to hear from him.

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## Question Box.

---

CONDUCTED BY.....F. L. WRIGHT,  
PLAINFIELD, MICH.

---

1. What is the best way to feed colo-

nies which lack stores?

2. Which is the best honey plant?

Q.

1st. It depends on the season. If in the fall use candy made of white or coffee A. sugar, or part coffee and part grape sugar, or maple sugar if cheaper.

2d. The best honey-producing plant in our locality may not produce well in another. Take one locality with another white clover is as good as any. There may be those that eclipse it, but we have never found them, where quality as well as quantity is taken into consideration.

What became of C. O. Perrine's "Floating Apiary?" I have never heard whether it was a success or not. Are there any others?

N. G.

Mr. Perrine's enterprise was not a success, we believe. We know nothing about it, only what we find in the bee journals. Mr. Perrine stated before the Western Illinois & Eastern Iowa Convention in October, 1878, that he did not take a pound of surplus honey, and that he lost 50 stocks on board the boat, and that 25 per cent. of the remainder were blown into the water and drowned. I understand that one of his barges sunk while descending the river. W. O. Atwood, of Lanesville, Ind., has a Floating Apiary. *Vide B. K. Exchange*, page 144, Vol. 2.

1. Is there a book published called the "Art of Propagation," a hand book for nursery men and florists? Where? and price?

2. How will small fruit culture and the bee business go together? Also, where can I get colored plates of fruits and flowers?

S. S.

1st. We remember seeing a notice of such a book in *American Wine and Grape Grower* about a year ago. Where published we cannot tell. Will the publishers please send us a copy? We often have inquiries for such a work.

2d. They will go well together. You can obtain colored plates of fruits of most of the large nursery firms, I think,

and of flowers of florists. They are printed in Rochester, N. Y., I believe.

NOTE—Will Mr. Riegel or some of the readers of the INSTRUCTOR answer the following questions? We are unable to.—Ed. Q. B.

In root grafting apples do they use small roots from old trees, or are the young trees cut at the collar? Also, how are grape vines grafted?

## Editor's Corner.

All of our correspondents who can possibly do so, should send in their articles by the last of the month preceding the publication month. It will probably be as convenient for the majority of them to do so then as any time, and will be a great convenience to us. Please do not forget this.

In the four counties of San Diego, Santa Barbara, San Bernardino and Ventura, Southern California, there are at present over 41,600 stands of bees, the product of which was for the present year 2,315,000 pounds of honey, or enough to load an Ocean Steamer of 1,157 tons burden. J-e-r-u-s-a-l-e-m!

As Mr. F. L. Wright, of Plainfield, Michigan, has kindly consented to conduct the question box for us, we request all persons who have questions to ask, pertaining to bee-keeping, to write directly to Mr. Wright, as above, by the last of each month, so that the questions may be answered in the INSTRUCTOR of the following month.

The *American Bee Journal* for December states that the Cincinnati Convention "ordered 1,000 copies of the constitution and by-laws, with the names of the officers and members for 1880, to be printed and mailed to every member." Just what it expects the members to do with a thousand copies apiece it doesn't say.



Rise up and explain, Bro. Newman.

Mr. James Heddon, the reliable apiarist of Dowagiac, Michigan, presents his business directly to our readers this month in a half page advertisement. We speak of Mr. Heddon as being *reliable*, and we use the term in its fullest and most complete meaning. His general Apiarian Supply Emporium is second to none in his State, and his well-known business veracity guarantees his customers full value for all money expended. He does all business strictly on a cash basis, and therefore can afford to sell at close figures, as he contracts no bad debts. Try him and verify our assertions.

TO SECRETARIES OF BEE-KEEPERS' SOCIETIES.—We would be pleased to have the Secretaries of these associations send us reports of the proceedings of Conventions held by them, upon the adjournment of the Conventions. In any case where a full report would be too lengthy we would be thankful for a synopsis, giving the cream of the proceedings. If you will do so we will be pleased to send you our Magazine, regularly, and satisfy you still further, if required. We shall be glad to hear from those who are willing to favor us in this matter, that we may put their names on our mailing list.

We are happy to announce to our readers that we have engaged Mr. James Heddon, of Dowagiac, Mich., to write for each number of the INSTRUCTOR for 1881, and can safely promise them a rich treat in bee lore in consequence, as Mr. Heddon is noted as one of the best writers on bees in the United States. He is a practical apiarist, and writes from personal observation and experience, which makes his articles doubly valuable to the novice in bee-keeping. His first article will appear in the next number. We have also secured quite a number of other correspondents, in addition to Mr. Heddon and those who appear in

this number.

It is doubtless a fact which most persons will admit, that nearly every bee-keeper has had some experience during his work with bees that would, if related, be of benefit to others. We would be glad if those of our readers who have had such experience would ventilate it through the columns of the INSTRUCTOR. In no other way can a publication of this kind be made so interesting and instructive as by its patrons taking a *personal* interest in it, and contributing the results of their own experience for the benefit of others. To those of our readers who have had such experience and are willing to relate it for other bee-keepers' benefit, or are willing to write an article occasionally on some subject of interest to bee-keepers, we will, upon receipt of a postal card signifying their willingness to so contribute, send them paper, envelopes and stamps, so that they will be at no expense whatever in writing for us. We hope that many of our subscribers will thus send in their names to be enrolled as contributors, as it is only through their efforts we can hope to make the INSTRUCTOR as good as it should be.

HOW ARE BEES WINTERING?—The winter season thus far has been a bad one on bees unless they were put away in the very best condition. The changes have been so sudden, and the cold so severe, that ice has collected more or less in stands that were not provided with absorbents to take up the moisture, as it was condensed in the hive. This matter of preparing our bees for winter with some kind of good absorbents, is every year attracting more attention, and we think very deservedly so, for we believe that just here is where many bee-keepers fail. We remember of seeing several stands of bees opened in March some years ago after some very severe weather, and about half the stands were

as dead as Julius Caesar. And what seemed strange at the time was, that the strongest colonies had died, and with full stores, while the weaker colonies were in good condition. This was not so strange, however, when properly considered, for the greater the number of bees the greater would be their combined breathing power, and their comparative power of condensation. We have no doubt but what these bees were in the same condition as Sir John Franklin was, when he was frozen in in the Arctic regions. It proved to the bees to be the Arctic region of death, simply because their keeper did not know, or if he knew, failed to provide them with proper absorbents. Just so will it be this winter with thousands of stands of bees that have been left in a careless, unprovided condition.

### Convention Directory.

The Indiana Bee-Keepers' Association will hold their annual meeting on the 13th and 14th of January, 1881.

FRANK L. DAUGHERTY, Sec.

The North-Western Illinois, and South-Western Wisconsin Bee-Keepers' Association will hold their annual meeting at Freeport, Illinois, on the second Tuesday in January—the meeting lasting two days. Speaking may be expected on the evening of the first day by prominent, practical bee-keepers.

JONATHAN STEWART, Sec.

Henry Van Nortwick, of Toledo, Ohio, says—A friend prevailed upon me to

try an "Only Lung Pad," and I obtained immediate relief from a racking cough. I know the Pad helped me.—See Advertisement.

## Business Matters.

### To Contributors.

In writing for the INSTRUCTOR write on one side of the paper only, and be careful to write NAMES very plainly, that mistakes may be avoided. It will suit us just as well (if it will you) to write on a light quality of manila paper, as on the finest writing paper. In lengthy articles postage can be saved in this way. Do not be later than the 5th of the month (unless unavoidable) in mailing your contributions to us; otherwise they may not reach us in time for publication. We invite correspondence from all bee-keepers on subjects relating to the apiary, and will always cheerfully give such articles room in our columns. We want to lead the van in publishing a practical bee journal, and think we can do so if each one who reads this will take it as a special invitation for him to write.

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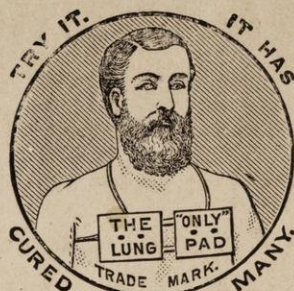
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