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VOL. IV.

JULY, 1882.

NO. 7.

THE
BEE-KEEPERS'

INSTRUCTOR.



A MONTHLY JOURNAL

Devoted to the Science of Bee-Keeping in All its Branches.

Webster Thomas, Editor.

WEBSTER THOMAS & SONS,
PUBLISHERS AND PROPRIETORS,

SOMERSET, KENTUCKY.

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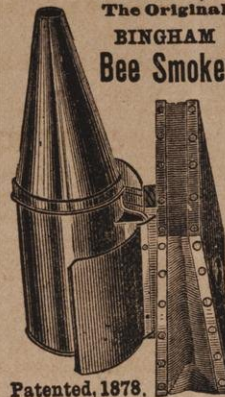
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Bee-Keepers' Instructor.

Devoted to Practical Bee-Keeping in All Its Branches.

VOL. IV.

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NO. 7.

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dle of each month. }

"EXCELSIOR."

{ Terms, 50c. per year,
{ or 30c. for 6 months.**Our Contributors.**

For the Bee-Keepers' Instructor.

Economy in Bee Culture.

E. A. THOMAS.

The longer I live the more I am impressed with the fact that life, and success in life, is made up of little things, but not much moment in themselves, but which all unite to form the grand whole. In my opinion, the extent of a man's success depends in a great measure on the care and attention which he gives to the minutia of his business. I was very much impressed with this view while visiting the factories of a successful manufacturer, a short time back. Although he was accustomed to drawing his check for thousands, he did not think the little things beneath him, but looked after them with all the solicitude which characterized his first business transactions.

Those who have met with the most flattering success in the pursuit of bee-culture will almost invariably be found to possess the habit of taking care of the small things, which of themselves are of but little moment, but which combine to produce results that are alike surprising and incomprehensible to those who do not possess that happy faculty.

Economy, taken in its broadest sense, implies a two-fold meaning: economy, which has reference to a judicious expenditure of labor and material, and to the saving of the labor of the bees, and of such of their products as might otherwise be wasted; second, economy which relates to expenditures.

First, I wish to say a few words in regard to the work of the apiary. When I speak of economy of labor, I do not wish to convey the idea that any work necessary to the scientific management of an apiary should be neglected or slighted,

but that we should have system in everything we do. Who has not noticed how some, although never seeming in any hurry, always "turn off" a large amount of work and keep everything up square with the day, while others, who will always be found hurrying with all their might, never succeed in getting anything done when it should be, but are always just a little behind? Now, why is this? An explanation may be found in the fact that the first-mentioned class have some method and system in their work, and know just what to do, when and how to do it, and so make every move count. By anticipating every manipulation in the apiary, we may so economize our time as to enable us to keep a larger number of colonies, and thus increase the profits of the apiary.

The second point to be considered, and a very important one, is the saving of the labor of the bees. During a heavy honey flow bees' time is honey, and the judicious bee-keeper will endeavor to keep as strong a force in the field as possible. Conducive to this end is the free use of comb foundation, both in the brood chamber and in the boxes; also concentrating and economizing the heat of the bees, to enable them to make the most rapid progress in comb building with the employment of as few bees as possible. Mention might also be made of the necessity of properly shading the hive from the rays of the sun in extremely hot weather, and of always providing the bees with plenty of room to store the honey as fast as gathered from the fields. The economist will not fail to look after these things, as well as the more material part of his business.

An old proverb says that "a penny saved is as good as a penny earned," and I think no one will gainsay the truth of this; therefore it will pay to save all pieces of good worker comb, and all scraps that may be rendered into wax. For this purpose a scrap basket attached to the tool

box will be found very convenient, and, as it will always be at hand, it will be no more work to put in the scraps and bits of comb as they are clipped and trimmed from the hive, than it would to throw them on the ground. Any one who has never done this will be surprised at the amount of wax that may be rendered from the contents of a scrap basket in the course of a season's work.

All implements used in the apiary should be cleaned and put away when not in use. Attention to this one point will save the bee-keeper many dollars in the course of a few years. As an example illustrative of this point, I will mention the bee-keeper who has to have a new smoker every season, while some, by care and proper usage, make one last for many years. A good extractor ought to last a man a life time, yet I have known one to be used up by neglect, and accidents consequent from such neglect, in a very few years. Unfilled sections if put away all clean and nice at the close of the season will be as good as new for the next season's use, while if left around until they become daubed, swelled, warped and dirty, they will hardly be fit for use again, and must either be thrown away or used at a loss on the price of the honey. I might call your attention to many other things in which economy might be practiced, but believing that the above will convince you of the expediency of looking after these things, I will proceed to a consideration of economy in expenditures.

Bee-keepers who are making bee-culture a business, and who are depending in whole or in part upon the products of the apiary for a living, should not indulge in any costly hives or fixtures. They should use hives as plain as is consistent with the present advanced state of bee-culture, and that are substantial and durable. On this account the Simplicity hives are worthy of recommendation, as combining all the essentials of a bee hive, with the smallest expense. All other supplies should be selected with a view to their adaptability to the necessities of the apiarist, and such as are well and durably made. You should ascertain where you can buy goods to the best advantage, and, by getting your order in early, take advantage of any discount which may be offered.

Whenever you see anything that you think you would like, ask yourself if it is a necessity, and if it is not, whether you can afford it or not.

But economy may be carried to such an extreme that it will become a "penny

wise and pound foolish" policy. Remember that it is not economy to fail to provide a sufficient supply of comb foundation, sections, etc., as it will do no harm to have a little stock left over until another season. A deficiency during a good honey flow will prove a far greater loss. Nor is it economy to do without the bee journals; if you must curtail your expenses, do it in some other way. You should not fail to provide yourself with plenty of good bee literature, as in no other way can you keep posted and abreast of the times.

I would not have the reader understand by the foregoing remarks that I advocate buying a cheap or poor quality of goods, but only such as are of *practical value* in the apiary. I have always found it to be the cheapest in the end to purchase good goods. The object of the present article is merely to impress upon the mind of the reader, who is making bee-culture a business, the folly of indulging in too many luxuries for the apiary.

Coleraine, Mass., June 29, 1882.

For the Bee-Keepers' Instructor.

Best Bees and Queens.

JAMES HEDDON.

The above topic is beginning to interest bee-keepers above all others. In "this quick and sudden interest which is not safely suppressed," I think all show good sense; for it is a vital point in our pursuit, and one that wields no secondary influence for or against our success as honey producers. But after all it seems to me that the whole subject is a simple one, and "all in a nutshell," although some of our old "practitioners" are a little obscure in regard to the subject. Perhaps, though, the obscurity is in the reader (myself), as Edgar A. Poe said of Tennyson's poems. I cannot better give you my theory in regard to the matter under consideration than to give you a correct history of my last six years' practice, and its results:

Fourteen years ago I purchased my first Italian queen, of Adam Grimm, and introduced her successfully to one of my German colonies. Soon I had the pleasure of viewing the young golden-striped fellows basking in the sunlight of mid-day airing flights. They were beautiful to look upon, and handled differently from my German bees, and as I was habituated to the Germans the Italians were very disagreeable to me. The first year they fell short of my average Germans as

honey gatherers, but then I prized them above all other stock because I paid \$8 for the queen alone (more than for any full colony of the Germans), and besides the three beautiful golden rings were upon every bee. Honey or no honey, they were *valuable to rear queens from*. I did rear some from them, and they produced bees that were business at both ends. As honey gatherers they were good, and as stingers they were bad (for me).

But to cut the history as short as possible, I will only say that I purchased numerous batches of queens, varying in number from 1 to 40, and tested them and their crosses, with my Germans, and I found that "variation" was pronounced among my crosses. After summing the whole matter up I felt convinced that I had gained nothing, to say the very best I could for the Italians, over my original native stock.

I then learned from one of America's most famous honey producers that a new strain of Italians was in the American domain, and bound to have the *best*, and settle the question of superiority between the blacks and Italians, I bought 25 full colonies and 12 tested queens of this new strain—the leather-colored Italians. On testing them I found them vastly different from their golden cousins. I liked their disposition, I liked their behavior, I liked their superior comb-building qualities (superior to the golden Italians), and I liked their superior honey-gathering qualities. Still I had pure German colonies in my apiary, and crosses between these dark Italians and the Germans resulted. More "home thrusts" were looked for, but right here I learned what to me seems the most wonderful of all laws connected with bee breeding, viz: the crosses between the brown Germans and leather-colored Italians are as good-natured bees as any I have ever seen. As honey gatherers and comb builders they excel all others, though as with all animated nature, the law of variation is prominent among these crosses.

Just here (about five years ago) I dropped the ring business, and commenced breeding for the *qualities* I desired my colonies to possess, and breeding out such as were objectionable. To do this I did not make haste to bend everything to a fancy of *perfection*, and commence to cut, gouge and slash as some have advised. I concluded to go slower and surer, using more caution and time and less haste. I tested my colonies (I had at this time about 80, spring count) for the following qualities: Amount of surplus gathered, delicacy and rapidity of comb

building, and good nature. In order that I might get on faster and surer I put but little stress upon other qualities, giving them no consideration when they stood in the way of the ones just mentioned. The most bright comb honey, with the fewest stings, was the point; for although I care no more for stings than others, we all treat bees with the peculiar respect of moderation, and the less of this respect we have to exhibit when handling them, the faster they can be manipulated and the better we like them.

How did I work to breed in the good and out the bad qualities?

Well, I did not cover a barrel with glass or wire cloth and drop in a queen from Mr. Famous and a drone from Mr. Theory. The way I did do was this: After testing all my colonies and marking their hives indelibly and unmistakably, I began to stock the air with drones from my best *acting* colonies. I did this by keeping the frames containing the most drone comb in stocks of best habits, allowing none in the inferior ones—neither a hard nor impracticable task. I allowed my bees to increase by natural swarming, and from my choicest colonies got cells to requeen the poorer ones. If any poorer ones swarmed first, I cut away *all* their queen cells, substituting therefor a large, well-developed cell from a choice colony. Just as soon as the apiary contained a few choice queen cells, I commenced to behead all queens whose progeny was either cross, poor honey gatherers, or few in number. I consider *great* prolificness of no value,* but all queens *abnormally* unprolific, either by nature or age, should be superseded, and their drone brood, if any, cut from the combs.

Whether correct or not, I always give preference to cells developed under the natural swarming impulse, and in no case ever allow a cell to hatch that has been built in nuclei, or in any way second-class colonies. I have used but few "forced cells" (that is, cells built by colonies that were forced to do so by the removal of their queens), and these built by very strong colonies just in swarming time. Whether such cells are as good as those built under the swarming impulse I don't know. Does anybody know? Has any one ever made a test comprehensive enough to decide the matter in the minds of unprejudiced and thinking apiarists? I have heard of no such test. But these forced queens, although cre-

*In my next article I will try to prove that excessive prolificness in the queen is of no value, and that the supposition that it is is a mistaken idea.

ated under the most favorable circumstances, can surely be no *better*, on the average, than the others; and I somehow *feel* that queens reared under the swarming impulse are best. I have faith in Josh Billings' saying that "the best time to set a hen is when the *hen* is ready." True, man can advantageously guide the direction of nature's laws, but he must not do this unless he understands the bearings of his work well, and must never expect to succeed when he goes contrary to them.

My plan of getting a number of cells from any *special queen* is to insert frames of new comb or foundation in the center of the brood chamber, and as soon as drawn out and full of eggs (not larva) cut up the combs into pieces of any desired length, and one inch wide, and fasten them to the top bar of a frame, cells up and cells down (destroying the upper cells of course), filling the frame with bars of cells put in every $2\frac{1}{2}$ inches. Then go to a colony you have reason to think should swarm soon, and look in it for cells. If any are found, cut them out, and if not, or after they are cut out, insert one or two of these frames in the center of the hive, and leave their queen with them. They will build a fine lot of cells four times out of five. When these cells are capped over you may place them anywhere you please to hatch—in a lamp nursery, any small hive or nucleus, or in any place where the degree of heat is regular enough, and proper for their development. About 75° F. is right.

Always when working among the bees and combs we embrace every opportunity to make improvements. If any overlooked drone brood appears in the wrong place, we cut it out; if any new favorable qualities are discovered about the inmates of any hive, the hive is so marked. No matter to what standard of excellence you may develop your apiary, there are always good, better and best colonies in it, and consequently work to be done by way of improving their qualities.

Now in regard to the

DOLLAR QUEENS.

No man having the least integrity would think of rearing them in any different way than he would any other queens. There is this difference: He who sells dollar queens will sell more of them than he would of tested queens, and should use a lamp nursery and general outfit for rearing in large numbers. He will not be forced to hold them until he has counted the gold rings their progeny possesses, though after all this is no

test. All tested queens are bought to breed from, I suppose, and I will not breed from any queen that I, or some one in whom I can rely, has not tested for a whole year, and for the *qualities* of her workers. I or any one else ought not to sell any queens as tested that have not been put upon their merits for at least one year, and proved worthy of the name. I have seen real pretty men who were almost useless in this world, and the same statement is true of bees. Let our motto be, "Handsome is that handsome does."

I cannot see how the dollar queen traffic is going to degrade our stock, if the breeder is competent and honest and the purchaser does his own testing, weeding in the good qualities and out the bad ones, as he finds them.

Perhaps there is one disadvantage in the tested queen system. Perhaps queens in transit (especially if sent by mail) change their qualities. I have read enough in Langstroth's book and the bee papers to make me believe that they sometimes do. I will never order a queen from which I expect to breed, without retesting it after received, unless sent by express. Owing to this fact, and the one that many dollar queens are ordered in lots of from 5 to 25, I consider the admission of queens to the mails of doubtful value to bee-keepers.

Dowagiac, Mich., June 24, 1882.

We must confess, Friend H., that we are a little surprised at that last sentence of yours. If there is any one thing above another that has contributed towards developing the queen trade to its present large proportions, it certainly has been the admission of queens to the mails. Hundreds and thousands of beekeepers living in small villages remote from railroads and express offices, in the country, and other out-of-the-way places, have by this means been enabled to Italianize their colonies of blacks at a trifling cost, whereas, if the only means of getting them had been by express, at a much greater cost and with much additional labor, the Italianizing would never have been done. As to the queens being injured in transit by mail, the danger is so little that it amounts to almost nothing. Such, at least, is our experience.

For the Bee-Keepers' Instructor.

My Experience With Dollar Queens.

D. DE FREEST.

There are some things connected with the bee business that do not seem very clear to me, among the first of which is that most supply dealers make the statement that the Italian bees are now considered to be much superior to our natives. Now, if this is true, why do so many keep both kinds of bees? Why not get rid of the blacks entirely and be done with them? Should these men act upon this principle we could have faith that they believe what they say, and that they are not merely blowing their bugles for the purpose of selling their short-lived one-dollar queens that G. M. Doolittle speaks about in the December number of the *Exchange*, which, judging from my experience, is about the truth. One year ago last August I sent my dollar for a queen. When she came could see no difference in her color and that of natives. Her workers were two banded while her drones looked like pure blacks. In about thirty days she was dumped out dead in front of the hive. Early in October a new queen was reared, which was far better looking than her mother, but she was also short-lived, as she died or was killed in April. The hive she was in began to dwindle in February, at which time I began to feed them. This started brood rearing, but before the brood commenced hatching the bees had so dwindled that much of the brood perished with cold. During this time (twenty-four days) kept the stand in a warm room closed up without a fly. Put them out the first of April, and on examining them about the 20th found queen cells, and without thinking cut them all out before looking for the queen. Found her majesty dead next day in front of the hive. This was the last of these bees and my queen reared in September. I then concluded I would rear my own queens, but before my efforts were realized sent for a queen to A. E. Manum, Bristol, Vt. Mr. Manum claims in his circular that he does not send out any but A No. 1 queens. She came all right with cage marked 210, XX, but it was impossible for me to make these figures and characters spell A No. 1.

To-day for the first time saw the Italians bringing in pollen. They housed up two weeks before the brown bees in the same hive, and were two weeks later in coming out for a fly, and they are now two weeks behind in their field labors;

yet they have done well as house-keepers, having reared a fine lot of young bees that cover seven combs 6x17. There are some brown bees in the hive over seven months old doing duty every day they can get out.

I winter on summer stands where the north-west winds have a fair sweep. Begun with three swarms last spring. They gave me five natural swarms. This made me eight, from which I took twenty frames of brood and honey and built up four more good swarms. How is this for a man of "limited experience," as L. C. Root has it. All have wintered finely, and are as strong now as they usually are two weeks later. The Italians are one hour later in the morning in getting out to work, and about an hour earlier to quit work in the evening. One weak swarm that did not cover two frames lived and did well on not more than three pounds of honey until February 14th. Then a little feeding carried them through in good condition. I winter in a chaff hive of my own construction, and have lost no bees in them.

By the way, Mr. Manum reports that he sold 400 queens last season. If it could be done it would not be a bad idea for those who bought queens of him to send in their reports as to the number now dead and alive. Perhaps if the dollar queen business was properly ventilated it would be a benefit to those who have had but a limited experience, and have been depending on buying these dollar queens. An investigation would doubtless cause many to rear their own queens during the swarming season, and not put their dollars in the pockets of dead beats, bugle blowers and patent hive swindlers.

East Greenbush, N. Y., April 26, 1882.

Well, you have had quite a discouraging experience with dollar queens, friend D., and yet, if those you speak of are all that you have bought, your experience has been too limited to speak decidedly either in favor of or against them and their breeders, and hardly warrants you in applying the complimentary(?) terms that you do. As far as our experience with dollar queens goes, they average about as well as any others, and for all practical purposes, except breeding from, are just as good, and we have had some that we would not hesi-

tate a moment to breed from. Whether, because occupying the position of editor of a bee journal, we have been specially favored with "picked" queens, we do not positively know, but have no idea that such is the case. We have too much confidence in the honesty of the breeders we have purchased from (and they have not been a few) to think so, and besides, those queens purchased before being connected with a bee journal were just as good as those purchased since.—That the Italians are superior to the blacks there can be no doubt. This we know from personal experience, and as we do not now, and never have, dealt in queens, we suppose you will give us credit for disinterested motives in making the statement.—"Why so many dealers keep both blacks and Italians" is a question that we cannot answer for all. We are inclined to think that many, comparatively, do not. Some that we know of have more or less blacks on hand nearly all the time, which they are obtaining almost constantly through the season in exchange for hives, queens, etc., but we never knew any dealer to buy black bees without immediately Italianizing them—which is proof of itself that they believe the Italians to be better than the blacks.

For the Bee-Keepers' Instructor.

Requeening, and Obtaining Surplus Honey at the Same Time.

F. L. WRIGHT.

The method described below we have practiced on a limited scale only, but as far as tried it has worked so satisfactorily that we shall try it on a larger scale, should we be spared till another season. The colonies experimented on have been those whose queens were getting aged, and in order to requeen them and still obtain a crop of surplus white honey, it is obvious that either the queen must be superseded early in the spring, or else

just about the time they are making preparations for swarming. The latter we prefer. Our queens are stimulated to their utmost after fruit bloom and hives are usually very full of bees and ready to cast swarms as soon as white clover opens. As soon as they start cells, we remove the old queen and leave them queenless two or three hours. We then give a good smoking and at once introduce a fertile queen from a nuclei, put on section boxes, and have never yet had them swarm when given plenty of room, and never failed to get a good crop of clover or bass-wood honey.

If we had waited till they had cast a swarm before introducing, and then given both the swarm and the stock a new queen, we would no doubt have gotten fully as much surplus during the season, but not as much white honey; besides, we should have had two swarms or colonies to care for and look to, which would have taken time, and with one who has as much to do as we have, time is precious.

Plainfield, Mich., July 5, 1882.

For the Bee-Keepers' Instructor.

The Outcry Against Dollar Queens.

J. E. POND, JR.

Why is it that there is such an outcry all at once against "dollar queens?" It cannot be possible that those who decry them do so in order that they may make a market for high-priced queens of their own raising! O, no! People nowadays are not actuated by selfish motives, and only advise for the sole benefit of others. Then what is the motive for assailing an interest which, in the hands of a few energetic bee-keepers, has assumed such grand proportions, and has been the means of introducing Italian blood at a reasonable price into thousands of apiaries whose owners could not have afforded to improve at a higher cost?

One writer says the introduction of the dollar queen business has been a positive injury to the science of apiculture. Is this true? I say no, and I further say that the evidence is positive that the best results in many cases have been obtained from these same dollar queens. Does any one pretend to claim that a tested queen is any better than she would have been had she been sold for one dollar, before it was ascertained by the breeder whether she had purely mated or not? And what is a tested queen but a dollar queen, proved by keeping her until her

progeny hatches, and then ascertaining that such progeny stand the admitted test of purity? But admitting even that this queen sold for a dollar is not purely mated, has not the purchaser improved his apiary by her introduction even then? The infusion of Italian blood in however small a degree has been proven to be beneficial in all cases; consequently, dollar queens have been a positive benefit rather than injury, to the interest of bee-keeping, no matter who may say to the contrary. It will be difficult at this late day, and in view of the strong proofs in their favor, for any queen breeder, however much he may desire to raise the price of queens, to prevent the masses from assuming the risk of pure mating for a dollar, rather than pay two or more dollars for a tested queen. In my own experience eight out of ten dollar queens have proved purely mated; consequently I have got eight tested queens for \$10 instead of \$16 or more.

There has always been, and still is, a large amount of humbuggery in the queen-raising business, many breeders claiming that they are breeding from the purest selected queens and the finest selected drones, and all this when their apiaries are in close proximity to plenty of black and hybrid bees. When it is found possible to fertilize in confinement, or to control every colony within a radius of six or seven miles from the breeder's apiary, then, and then only, can we overcome the obstacles that now prevent us from breeding select strains of bees, by following the same general rules that govern the raising of other stock where full control can be had of both sire and dam.

When the time comes that will see queen breeders all striving for the good of the public rather than to advance their own selfish ends, we shall see a fresh impetus given to apicultural pursuits, and long steps taken in advance of the present state of the business. Let us hope that such a happy state of affairs may come speedily.

FERTILIZATION OF QUEENS.

I believe that the generally admitted idea that a fertile queen never leaves her hive except when she goes out with a swarm, to be incorrect, and that many queen breeders have been unjustly accused of selling hybrid queens, when the fact is that such queens were purely mated when sold, and afterward met a black drone in the apiary of the purchaser. This very spring I introduced a queen into one of my own hives, to take the

place of one that died, and being anxious to see that she was all right and laying well, I opened the hive every day. On two different days I could not find her, and had begun to think that she was lost, but finding plenty of eggs and no signs of queen cells, I concluded that I had overlooked her. On the next day I again opened the hive, and after a thorough search could see nothing of her, but while closing the hive up, and just before I placed the mat over the frames, behold! in she came, alighted on one of the top bars, and went down into the hive. My belief is that she was out flying around on both previous occasions when I could not find her. She was laying freely, and was very prolific, and I did not find any evidence of a second copulation attached to her, though as it was early in the season, and very few drones were about, she might have gone out on a second or third wedding tour and not have met a drone, owing to their scarcity. Why did this queen leave the hive, unless it was to meet a drone? and if this was her purpose, we have all been in the dark in our conclusions; for we have been led to suppose that a single fertilization was sufficient for a lifetime. It is possible, and I may say probable, that queens do leave the hive oftener than we think for, and it may be that occasionally it becomes necessary for them to take a flight, either to deposit fecal matter or for exercise; and it is possible that many queens while out on such a flight might meet a drone and become hybridized without our knowledge.

Truly there is much yet to be learned in the matter of apiculture, and the condition, habits and performances of the honey bee. It is only by careful investigation, and close examinations, often made, that we can expect to arrive at the whole facts connected with the same, and by these means many of the mysterious matters that now seem wholly unexplainable, may be made clear as daylight, and we ourselves astonished at finding how simple a matter the solution of them is.

Foxboro, Mass., June, 1882.

From Gleanings in Bee Culture.

How Doolittle Gets Honey Every Year.

G. M. DOOLITTLE.

By referring to page 75 of present volume of *Gleanings*, it will be seen that J. A. Buchanan draws some conclusions, after which friend Root makes some comments, the explanation of which is the

purpose of this article. When I first commenced bee-keeping, I was greatly benefitted by the writings of E. Gallup, M. Quinby, A. I. Root, Adam Grimm, and many others; for by their writings I learned my A B C in bee culture. My first year of bee-keeping resulted in 12 lbs. of surplus box honey, and one swarm from the two I had bought to commence with. The next season I obtained about 26 lbs. surplus from each hive I had in the spring, on an average. At the end of the fourth season I chronicled an average of 80 lbs. box honey as the average surplus for each stock in the spring. During these four years I had studied, read, and practiced all my wakeful hours, about the bees, for I never spent an hour in my life in work pertaining to bee culture without its being a real pleasure to me. Many a night have I lain awake from one to three hours, planning how to accomplish some result I desired to achieve in regard to the practical part of apiculture. Although no scholar, and having scarcely the advantage of a common-school education, I felt that I ought to write for publication, thereby adding the little I might discover from time to time, to the general fund of knowledge, thus helping others what I could to pay in a small measure the debt of gratitude I owed for the instruction I had gained from the writings of others. Hence I began to write; and as the editors kindly fixed up my articles so as to make them presentable, I had the lightest part of the job in jotting down my disconnected sentences. And to-day finds me still scribbling away, trying to tell what I know concerning practical bee-keeping. But I see that, of late, some think that "Doolittle" is writing only for the sake of giving a big report, to make it appear that "I am a big bee-man." Now, friend Buchanan, did you *really think that* because you could not reconcile a hive full of honey in the fall with a small brood-chamber, or were you a little jealous? At first I hesitated about giving in a report at all; but when I looked back over the past, and saw how eagerly I followed the plans of those who backed up their system of management with a good report each fall, I saw that, if any confidence were placed in my methods, it would be necessary for me to show the success of those methods. Right here I wish to say, that I never yet reported a pound of honey but that was actually sold; so the insinuation of something else falls harmless to the ground. If you wish to learn farming, to whom do you go, to the man whose farm grows up to weeds and

briers, or to the man who produces good crops each year?

At our N. E. B. K. Association there is usually a person who is always telling his methods of management. While he was giving a long harangue over it, E. D. Clark, an excellent, practical bee-keeper, said to me, "I double his yield of honey every year, and until he can better his reports, I don't care for his methods." Thus I have given you, in Mr. Clark's sentence, why I have reported each year.

But to the next point: "Colonies so managed are not self-supporting." Had you forgotten, friend B., how I have advised that the bees be made self-supporting, and not only this, but that each bee-keeper so control his expenses that he is self-supporting also? To show that my bees have been so managed as to live without "resorting to feeding for winter supplies," I will say, that for the past nine years in which I have reported, I have fed only two barrels of sugar, which was in the spring of 1878, after a failure of honey in the apple blossoms. When I read of so much feeding of bees as others report, I don't see the need of it; but as I presume they do, I am willing they should do as they think best. But, says B., since with your small hive the frames will "be filled with brood, the bees must store all their honey in the surplus boxes;" from whence comes your honey for winter? Well, it is in this way: After I have worked my bees so as to get every cell full of brood as far as possible, the boxes are put upon the hive, after which, it will be remembered, I have advised letting the bees alone, unless something of necessity occurs, such as loss of queen, getting a frame of brood for queen-rearing, etc., which demand that the hive should be opened. Now, by thus leaving the hive alone, the queen, which has heretofore been somewhat overtaxed, takes a partial rest; and as the young bees hatch, the bees fill the outside combs with honey, as well as the upper parts of the frames. This part of the matter, my friends opposed to small hives seem to have forgotten.

The main secret of success is the getting of the combs literally full of brood before the honey harvest, thus getting a full force of workers ready for the field just when they are needed. What man is there who hires a lot of hands to hoe corn before the corn is up? Not one; but they wait until the corn is ready to hoe, and then have the help. Just so we want our bees at the right time, to have them profitable. A hive *full* of bees in April is of no more use than a field full of men

to hoe corn would be at that season of the year, for June is the time we hoe corn in this latitude. Again, if we do not have this brood and bees in time for the honey harvest, all the extra powers of the queen are spent in vain; for it would be like getting a lot of hands to hoe corn in September, after the corn was ripe. Once more: If the hive is not full of brood when the honey harvest opens, the bees will store their first honey in the brood-combs instead of going at once into the boxes; and if a start is thus first made in the body of the hive, the bees will idle away their time to a greater or less extent, as they are loth to work in the boxes at all. "Enough is as good as a feast," and so 25 lbs. of honey in the brood-chamber the first of Oct. is just as good as 50 lbs.; and as a rule I have 25 lbs. in my small brood-chamber, while with large ones the average will be 60 lbs.; and I have already shown why that 25 extra lbs. is far more profitable in the sections than in the brood-chamber, aside from its selling value. Of course, I have to see to each hive in the fall, and equalize the stores so that all have the 25 lbs., which would not have to be done with the large hives, for the lightest would undoubtedly have that amount. If there is not enough honey in the yard to make the 25 lbs. on an average, as was the case in 1876, I double them down until there is enough, and then make them self-supporting. If I can impress upon the minds of the reader these two facts, that, to get plenty of bees in just the right time for the honey harvest, and the hive full of brood at this time, is the great secret of successful bee culture, I shall not have written in vain.

Now a word to friend Root. As I read, "If friend Doolittle would get along without the losses he sustained in wintering so almost invariably, we should have still more faith in his peculiar plan of management," my mind was carried back to my visit at Medina, Ohio, in 1876, at which time friend R. told me he believed it was his sphere to teach the bee-keepers of the world, through *Gleanings*, which we all know has proven true. Now, friend R., shall we lose our faith in your teachings because you don't succeed in wintering bees any better than does your humble servant? Nay! I rejoice to see a man winter his bees every time; still, I respect the teachings of the man the more who loses half of his bees every winter, and still clears \$2.00 off the half left, than the man who winters the whole and clears a dollar. Geo. T. Wheeler once said to me, after losing nearly all his bees during the

winter, "I can make 500 per cent. on money invested in bees from summer management, and buy my bees of my more successful wintering neighbors, while they make only 250 per cent. out of their bees, total receipts all counted.

Borodino, N. Y., June 16, 1882.

Letter Drawer.

They Don't Sting.

I have tried bee veils for working among bees, but some how it happens that they come underneath, and then the veil is of no use. I have also tried rubbing my hands with sweet oil, coal oil, hartshorn, etc., but when they get angry it is useless.

At last this spring I tried turpentine, which I find the bees don't like. Put a little on the hands and face, taking care not to get the turpentine into one's eyes. The smell of the same I found worked admirably among them; they buzzed around but did not sting. I made two artificial swarms, and now they are building on top. Has the experiment been tried? Probably many don't like the smell of the turpentine, and it is disagreeable to them.

JOHN P. ADAMS.

Darby, Penn.

Poor Season in Massachusetts.

Bees are doing very poorly here this season, raspberries and white clover proving a failure. Bee-keepers in this State will confer a favor by sending me the names and addresses of the Secretaries of agricultural societies, as I wish to correspond with them in reference to the offering of suitable premiums for the best display of honey and apicultural implements at their annual fairs.

I would also like bee-keepers of this State to send me a full report of their season's work, giving number of colonies in the spring, number at date, their condition, etc. As there is so little known about the state of bee culture in Massachusetts, I desire to make a full report at the National Convention in October.

E. A. THOMAS,

Vice-President for Mass. of
National Bee-Keepers' Ass'n.

Colerain, Mass., July 1, 1881.

Poor Season.

It is not what I call a good season for bees, although they wintered very good and but few bee-keepers lost many. The cold and wet spring has put them back very much. Scarcely a swarm has issued

in the neighborhood so far, although we have had some nice warm days when the bees improved the time.

Enclosed you will find stamps for my renewal to the INSTRUCTOR, which I would not be without. A. D. FULLER.

Waverly, Penn., July 4, 1882.

Prospect Brightening in Michigan.

Bees are doing very well here now, although up to within four days ago they did very poorly. JAMES HEDDON.

Dowagiac, Mich., June 15, 1882.

Excessive Swarming.

I have not been able to control the swarming of my bees for the last three weeks, and have more colonies than I can care for properly. The sumach is giving nectar in quantities greater than anything else here so far. D. KEPLER.

Coulterville, Tenn., June 26, 1882.

Short, but to the Point.

I have 65 colonies of bees and no honey. W. W. BLISS.

Los Angeles, Cal., June 25, 1882.

Bees in Pennsylvania.

Bees are booming here. I now have 25 colonies. Season is late. I have taken off no honey yet. G. H. COLVIN.

Dalton, Penn., July 10, 1882.

Question Box.

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

All communications for this department should be sent to the above address not later than the 20th of each month, to insure an answer in the INSTRUCTOR the following month.

Bees Troubled With Moths.

I am in trouble with my bees. The moths are in them. There are some in them one inch long. I have cleaned them out as well as possible. I can't find any queen. There is no young brood. There was about 15 queen cells started, but the bees tore them to pieces a few days ago. Now, what is the trouble? There was nothing in them but a dry whitish substance in the base of the cells. Was that owing to the moth? Don't say they have swarmed, for they have not. What am I going to do? C. J.

Rockford, Ill.

If the moths are in the combs it is a bad case; if only on top of the frames and under the edges of the hive where the bees can not get at them, it is nothing very strange. If the first, remove all the frames, carefully picking out all the worms

with a pen knife, giving the bees only so many combs as they can cover. The balance of the combs should be fumigated with sulphur, and hung in a dry place till wanted. If you are sure they have not swarmed, I should say their queen is lost either by careless handling of the frames or else was superseded by the bees. In either case we think they have a young unfertile queen now in the hive, that hatched from one of the cells you saw, and that it was she who tore down the remaining cells, and not the bees. I think if you look carefully in 10 or 12 days from the time the cells were destroyed you will find a queen, or at least eggs and brood. If you don't, let me know.

Editor's Corner.

Dark vs. Light-Colored Italians.

Since writing the article in the May number of the INSTRUCTOR relative to the comparative merits of the light and dark Italians, our subsequent experience has satisfied us better than ever that the dark or leather-colored Italians are preferable to the light for about all the traits of character that go to make up the desirable bee. We had long been inclined to seek for the lightest bees we could find, inclining to the opinion that the lighter the color the purer the blood and the more gentle the bees; hence, the most desirable. Experience with the two strains, side by side, however, has changed our mind.

We have had a few colonies of the dark Italians in our apiary for a year past and procured two more last spring, and have had a good opportunity to test them with the light-colored bees, of which we have some that we consider as fine as can be found almost anywhere. One of the colonies of dark Italians spoken of was presented to us by Mr. D. Kepler, of Coulterville, Tenn. We had made arrangements for getting a queen of friend Kepler, and a short time before sending he wrote to us that he would send it in a nucleus; but when it arrived (in April) we found, in place of a nucleus, a pretty fair colony. From this we

have obtained one good swarm, besides assisting very materially in building up another, and it is now good and strong and working in surplus boxes. They seem to excel as comb builders and honey gatherers, and although dark they are well marked, of good size, quite uniform in color, and *very* gentle to handle.

The other colony spoken of we purchased of a neighbor. They are also of a dark strain, crossed, we think, with the brown Germans, are gentle and peaceable, and possess, so far as we have yet tested them, all the desirable traits in a marked degree. They, unlike the Kepler colony, are made up of many shades of color, from the well-marked Italian to the dark brown bee, and possess one peculiarity not commonly seen, about ten per cent. of the colony being of a bluish cast, the bands of a portion of them presenting a slightly bronze appearance. The queens and bees are large, but just how this hybrid has been produced we have no *positive* means of knowing. We prize the colony very highly, and will rear a few queens from it for our own use.

From our experience we have come to the conclusion that friend Heddon is about right in his estimate of the cross between the Italian and brown German bees. Our attention will hereafter be directed as much as possible to this cross, and to the improvement of a pure strain of dark Italians, so that we may test the comparative merits of each.

Advertisers when sending copy for their ads. should always state the space they wish them to occupy and the number of insertions desired; or if the latter is not known, just say to "insert until ordered out," or something of the kind. This saves useless correspondence, and avoids all chances of mistakes or misunderstandings.

The quantity of new honey sent to market as yet seems to be very small, as will be seen by referring to the market reports in this issue.

Packages for Extracted Honey.

Next to securing the honey crop comes the proper marketing of it, for upon this depends much of the success of bee-keeping as a business. The most important consideration to be taken into account in marketing honey is the style of package used, and as the requirements of the different markets vary much, it will be necessary for the producer to study the subject, and adopt that form and size of package best suited to the market he intends to sell in. The greater portion of the crop of extracted honey has hitherto been sent to market in barrels of from 300 to 500 lbs. weight, but since the introduction of spruce honey kegs a season or two since, they have been steadily growing in favor and are gradually supplanting the more cumbersome and unwieldy barrels. Below we give an illustration of the kegs, which will give a very good idea of their appearance.



SPRUCE HONEY KEGS.

These kegs offer many advantages over barrels. Taking everything into consideration they are fully as cheap as the barrels, as they cost but little more for same capacity, are much more convenient and easy to handle, and need no waxing before using, it only being necessary to soak them a little before filling and drive the hoops tight. To these advantages may be added the fact that honey in kegs commands a better price in some markets than when in larger packages.

The kegs are made in three sizes, holding respectively 50, 100 and 175 lbs., and are priced in a supply catalogue laying before us at 40, 55 and 75 cents each.

For the retail home market a different package is demanded—something small,

neat and attractive. One and two lb. glass jars and small tin pails fill these requirements, and are the best packages for the purpose yet devised. They should be attractively labeled, giving producer's name and his warrant of purity, and also state the fact that pure honey will always granulate in cool weather, and give directions for liquifying it. By paying careful attention to these points and putting up a strictly pure article of honey, any producer can with a little perseverance build up a good home demand for their product, which time will only serve to extend and strengthen.

The public is indebted for the tin pail idea to Charles Dadant & Son, of Hamilton, Ill., who rank among the largest producers of extracted honey in America. Following is a description of four different sized pails used by them—holding respectively 10, 5, 2½ and 1¼ lbs.—and a short extract from their pamphlet on "Harvesting, Handling and Marketing Extracted Honey," describing their experience with them. It will be seen that the two smaller sizes have proven best for the retail trade.



TIN HONEY PAILS. These packages that we could provide, unless they were coated with wax, which made them too expen-

Having failed to succeed in the sales of honey in glass jars, on account of the regular granulation of our honey and of its unattractive appearance in glass, since it looked like butter, or lard, or even worse, we concluded that the only thing to be used for small retail packages was tin. Small wooden packages were tried, and proved inadequate, as the honey soaked or leaked, more or less, through any of the cheap

sive. But tin was entirely successful. We already had the 10 lb. pail, but this was too large for a very large retail grocery trade. We had a 5 lb. pail made, which, though half of the former, was still found too large. A pail half of this size was then made. It was a pretty little thing—a real toy—and took well. But this was not small enough for some customers, and at the request of several grocers we divided it again, and then had a box of 1¼ lbs.

We first wondered that such a package of honey could be sold at all, as it contains but little over a pound of honey, leaves a useless box afterwards, and costs much more than the rest. But the fact is, that this small package is the best selling of all. One day one of us happened to meet a laborer of our acquaintance carrying one of these boxes of honey, which he had just purchased at a grocery. "Why W—, if you buy some of our honey, why don't you come to our house and buy 50 pounds in bulk? You will get it for about two-thirds the price that you have to pay for it in this shape." "Well, yes; I know, Mr. Dadant, but you see I can afford twenty cents a week for a box like this; but I could not afford seven dollars all at once. So I buy one of these boxes every Saturday, for my Sunday." That is the reason why these little boxes sell so readily. Besides, they incite a great many to try the honey, and thus lead to the sale of larger sizes.

We would like to pursue the subject further, but space will not permit. Our readers who are particularly interested in it will find much useful and interesting information in the work from which the preceding extract is taken.

If queen breeders have been slow in filling their orders this spring, customers should try and be patient. The cool weather and high winds that have been prevalent all through spring have rendered queen raising a very uncertain business.

In sending out sample copies we do not undertake to furnish them of any specified date. Those desiring any special issue should enclose the price—5c. per copy.

One, two, and three-cent stamps accepted as cash on subscriptions.

The Next National Convention.

From the Secretary's notice elsewhere it will be seen that the next National Convention will be held October 3d, 4th and 5th, at Cincinnati, Ohio. We sincerely hope, for the good of all concerned, that the coming session will be more productive of good, and give rise to fewer squabbles and disputes than those of the last couple of years. We know that much unjust criticism has been made in the past against the proceedings of the Society; but there has also been a great deal which there has been only too much foundation for. There is a growing feeling among many bee-keepers that the National Convention is not fulfilling the mission for which it was brought into existence, and, judging from the expressions of many bee-keepers, the feeling is deepening and widening year by year. The National Society numbers among its members many of the most intelligent and progressive apiarists of the country, the great majority of whom are honest in their efforts to promote the science of apiculture, and who dislike as much as any one to be on unpleasant terms with any of their fellow bee-keepers. But there is a small class who seem to have gotten the upper hand in the management of the convention, to whom self-honor and self-aggrandisement seem the principal objects in view, regardless of the welfare and prosperity of the society as an organization. The lionizing of a few to the utter neglect of others equally or more deserving is one of the chief complaints made against the society, and one which seems to have good foundation in fact. We hope the society will guard against this in the future, so as to leave no reasonable cause for complaint. We would like to see the organization prosper and strengthen, and its deliberations conducive of harmony and good feeling instead of discord and wrangling, but we are afraid the last few sessions have not tended any toward this end. It is not to be expected that everybody could

be pleased with the society's proceedings, no matter how carefully conducted; but where there is so much smoke there must be some fire, and the many complaints indicate that there are a few screws loose somewhere. Let the society see if they cannot tighten them up and keep them tightened.

Second Fertilization.—Mr. Pond bases some suppositions upon his experience with a queen, in his article in this issue, which, it seems to us, can be better explained on some other hypothesis. We think that, instead of the queen having been out flying around when he opened the hive, that it is more likely that she left one of the frames when the hive was first opened, and after taking a little fly returned just as the hive was being closed. The fact of her alighting on the top of the hive instead of at the entrance seems to strengthen this conclusion. We have no faith in a second fertilization, unless it be in rare cases, although we admit there is no evidence that such a thing is impossible. Negative evidence, however, is not what we want in such a case, but positive evidence, showing beyond question that there are cases where queens have been fertilized a second time. The fact that queens whose wings have been clipped after fertilization have performed their maternal duty for the rest of their lives just as well as others, goes very far to show that one fertilization is the rule.

Sums of over \$1.00 should be sent us by registered letter, and *not* by post-office money order, as Somerset is not a money order office. Amounts of \$1.00 or less are generally safe if sent securely sealed in a plain envelope, although when sent thus it is at sender's risk.

When you find a cross opposite your name on the wrapper, it is a reminder that your subscription has expired. If the INSTRUCTOR is desired continued a prompt renewal is necessary.

Late Publications.

The July *Century* is a very readable number, and fully up to its usual high standard of excellence. The illustrated papers include two of decided interest at this season: "The Evolution of the American Yacht," by S. G. W. Benjamin, and "The Horse in Motion," by Col. Geo. A. Waring, jr. The fiction is especially readable, the installments of the two continued stories, "A Modern Instance," by W. D. Howells, and "Through one Administration," by Mrs. Frances Hodgson Burnett, being unusually interesting. A number of shorter stories, poems, "The World's Work," "Topics of the Times," "Bric-a-brac," etc., complete the number.

The July *St. Nicholas* is a number that will make the children's eyes brighten as they scan its pages. It is an ideal Fourth of July number, containing an account of "An Early American Rebellion," a spirited and graphic account of the famous sea-fight between the "Essex" and the "Phœbe," in the war of 1812, and an amusing story by Sophie Swett of "The Boy who lost the Fourth of July." The rest of the number is unusually good throughout.

Both of the above magazines are published by The Century Co., Union Square, New York.

We are indebted to Thos. G. Newman, Chicago, for a copy of the revised edition of his work on bee-culture, entitled "Bees and Honey; or, the Management of an Apiary for Profit and Pleasure." The book as revised contains 160 pages, profusely illustrated, and embraces all the late improvements and inventions in this rapidly developing branch of rural industry. In the preface the author says: "It is not designed to supersede or supplant any of the valuable works on apiculture already published, but to supply a want for a *cheap work* for the beginner." It certainly more than fills the bill. Price, in cloth, 75c.; paper, 50c.

The editors of the *Bee-Keepers' Exchange* are to be congratulated on the improve-

ment in that publication. Since noticing the change of proprietors and editors we have said nothing regarding it, remembering the old saying that "a new broom sweeps clean," and preferring rather to wait and see if it continued as it started out. We are glad to note that it is steadily improving, and hope it may and is prospering as it deserves.

Cyprian Bees.—We had one nucleus of Cyprians last season, and as our readers will perhaps remember, stated that we handled them without difficulty, and thought they were not so cross as many claimed them to be. But we take it all back, for we have found since ours have bred up strong that they always have an *end* for business. They are troublesome to handle, paying little or no attention to smoke, and boil over the hive whenever it is opened. They sting most unmercifully on the slightest provocation, while the mashing of a bee seems to set them wild. Strains of these bees may differ, but so far as our experience goes we want nothing more to do with them. From the limited experience we have had with them we fail to see that they possess any superiority over the most gentle Italians. True, they are very prolific, but so are many of our Italians. We have decapitated the Cyprian queens (we now have two colonies), and have requeened with virgin Italians, preferring to run the risk of getting hybrids rather than keep the Cyprians. Ours may be hybrids, and for that reason we do not wish it understood that we speak for the Cyprians in general, but only so far as our experience goes; although we believe it corresponds very closely with that of the majority of those who have tried the Cyprians. At any rate we will rest satisfied for awhile with our experience, not so much for our dislike of stings (as they effect us but very little) as the fact that they are too much like "Banquo's ghost"—they will not "down" when we wish to close the hive, no matter how much smoke we pour into them.

The Season so far.—Spring has come and gone, and what is generally considered the best part of the honey season is over, and still in many localities bees have done scarcely nothing in the way of gathering surplus honey. The season throughout has been a very peculiar one. Spring opened very bright and promising, and all the indications pointed to an early and abundant honey season; but just about the time brood rearing had actively commenced, cold, chilly weather, with high winds, set in, and the weather has been quite variable ever since. Although we have had some streaks of exceedingly hot weather, during which time the bees improved the golden moments, these streaks have been of short duration, and succeeded by cool days and still cooler nights—which latter as every one knows are anything but favorable to the secretion of honey. At present bees are gathering only enough to keep them, and unless there should be a good yield of fall honey there will be but little surplus made in this vicinity; and the state of affairs here is the counterpart of that in many other portions of the country. It may be that a good crop of fall honey will be secured, and at any rate we can only hope for the best.

Our friends in Kentucky will oblige us very much if they will send us the names and P. O. addresses, written plainly, of all the bee-keepers they are acquainted with. We would like to get the address of every bee-keeper in Kentucky, if possible.

In the address at the bottom of the advertisement on last cover page, headed "Queens," read "Kepler" instead of "Kepllel." The mistake was not noticed until too late to correct.

Some of our correspondents are rather dilatory, and do not write as promptly or as often as they should. Don't be so backward, gentlemen. Let us hear from you oftener.

Articles and communications on subjects of interest to the fraternity are at all times solicited from those of our subscribers not regular contributors. We have a large corps of the latter—and good ones they are, too—and often hear from others outside of these, but not as often as we would like. We cannot and do not guarantee to publish *everything* that our friends may favor us with, but we always try to give every one a fair hearing, and subjects of importance will always receive due attention.

We hope no one is at any time deterred from writing through lack of education. Give us the *ideas* in as clear and simple a manner as you can, and we will see that they appear in the proper manner.

Please mention in sending in your subscriptions whether or not they are renewals. By so doing we will be saved much trouble.

The North American Bee-Keepers' Society will hold their next annual meeting at Washington Park Hall, Cincinnati, O., across Washington Park from Exposition building. Time, October 3d to 5th. First session commences Tuesday, October 3d, at 10 A. M. We are encouraged to hope that this will be a very profitable meeting, as we are promised papers from and the presence of a large number of our most prominent bee-keepers both in the United States and from Canada, and essays from abroad and implements of the apiary are expected to add to the knowledge imparted by the research and inventive skill and methods of our own countrymen. EHRICH PARMLY, *Sec'y.*

Honey and Beeswax Markets.

REPORTED FOR THE INSTRUCTOR.

Boston, July 11.

Honey—There is very little or no honey in our market, and some fine new 1 pound comb would sell for 22c., and 2 pound comb for 20c.
Beeswax—22 to 25c. CROCKER & BLAKE.

Cincinnati, July 11.

Honey—No change in the price. There is no comb in the market yet. The demand is good for extracted honey for manufacturing purposes. We pay 7 to 10c. on arrival.
Beeswax—Scarce. It brings 20 to 25c. on arrival.
C. F. MUTH.

Baltimore, July 11.
Honey—Comb, 12 to 15c. Strained, 8c.

Beeswax—Market a little off. 24 to 27c.
C. H. LAKE.

Cleveland, July 10.

Honey—Thus far only 1 case of new honey has been received, which sold at 25c. per lb for 1 lb sections. Of extracted there is none in market.

Bees in our vicinity, our own 34 colonies included, have done very poorly; no surplus yet.
Beeswax—25 to 28c.
A. C. KENDEL.

New York, July 11.

Honey—Buckwheat, comb, 11 to 13c.; buckwheat, extracted, 7 to 8c. Clover, extracted, 11 to 12c. California, extracted, 12c. Southern strained, 85 to 90c. per gallon.

Beeswax—Is scarce, and keeps steady at 25 to 27c.
H. K. & F. B. THURBER & Co.

St. Louis, July 10.

Honey—Movement is very light. Choice comb worth 18 to 22 cents. Some new "Texas" comb sold at 20 to 22c. Offerings small. Extracted, 8 to 10c. Choice Southern honey the precedence.

Beeswax—Continues scarce, with the demand for prime or choice yellow largely in excess of supply. We quote: 20 to 25c. per lb.; dark yellow slightly lower.
R. C. GREER & Co.

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J. T. WILSON,
Mortonsville, Ky.

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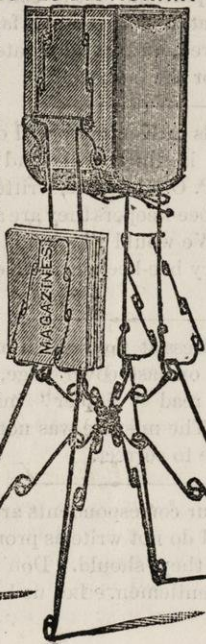
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