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# Queen Breeders Journal

PUBLISHED MONTHLY BY E. L. PRATT AT MARLBORO, MASS., U. S. A.

Vol. I.

MARCH, 1889.

No. 3.

## An Interesting Talk on

HOW TO REAR GOOD QUEENS, ETC.

So many plans have been given to the public to obtain the "best queen cells," that the inquirer after information must experience no little confusion when trying to settle on the "best plan."

Whatever may be said in behalf of cells reared under the swarm impulse, the queen breeder cannot rely on that method to obtain all the cells needed to stock a large queen rearing department. The swarming season in my locality does not, as a rule, last longer than four weeks, while the queen rearing season may last about twelve weeks, and even longer. These facts settle the question as to the practicability of rearing queens as a *business* by the swarm-impulse plan.

Now I claim that I can rear better queens by the methods I employ than can be reared under the swarm impulse. The simple reason, *selection of breeding stock* is out of the question if the queen breeder must wait for cells to be reared in hives that have cast swarms. The best colonies do not always swarm, and if they did not more than one queen in ten in the very best Italian apiary would be acceptable to a fancy breeder, for a breeding queen. I have owned queens, and now have one that will be three years old next spring, that \$50 would not buy in the breeding season. A breeding queen that will produce daughters of uniform size and color is not only hard to find, but is invaluable to the breeder when she is found. I am a fancy queen breeder, and never send out a queen in my regular trade that is under the

average size, or is "off" in color.

A friend in another state wrote me that he had ordered a queen from a prominent breeder and that she was so small that he *just turned her loose to shift for herself*. Another wrote me that he had received a queen from a *noted queen breeder* that was smaller than his worker bees, except in length of body, and that she was superseded by the bees, in the usual way of superseding old queens, in about six weeks. I never use the second "batch" of eggs (larvæ) from a queen that turns out even a small per cent. of such daughters as the above described dwarfs. Besides, the little dwarfs never go anywhere, for the reason that they are "pinched" as soon as hatched out.

I am sorry to say that a majority of queen breeders seem bent on bringing ruin on the queen rearing business by advertising and selling queens at prices below what good queens can be reared for. When a man proposes to sell an article or commodity at prices below *cost value* and proposes to continue the business, it is positive evidence that he is sending out an inferior article.

The thing that is needed most is better queens, and I am sure that bee keepers are willing to pay "living" prices for queens if they can only be assured that they will be fairly dealt with.

Reformation is needed along this line. Let the queen breeders send out none but well developed queens, true to variety and stock represented, and buyers will soon learn where they can get the best return for their

money. When I commenced this article I expected to enter at once upon a practical talk on queen rearing, but as I propose to write a series of short articles on the subject, covering the whole ground, I will close this article right here.

G. W. DEMAREE.

Christiansburg, Ky.

#### **What Bees to Breed.**

It is no doubt true that the first question relating to queen breeding very naturally is, "What kind of queens shall I rear?" You may remember, Mr. Editor, that some ten or twelve years ago, after having experimented several seasons, I became so firmly convinced that the best bees could be readily brought about by three or four seasons of cross breeding, that I began, and I believe I was the first to begin, advocating through the journals the crossing of the best of the pure races. Not only this, but I made special mention of the desirable feature of crossing the best STRAINS of the best races, for I was sure that there was a great difference in different strains of the same race. Years have rolled on and my experience has continued and increased, and I am today better satisfied than ever, that the stand I then took, which was promptly fought by many bee keepers in this country, was correct. Not only this, but I find that Professor Cook, who is not only a leading entomologist but an experimental bee keeper, and the most practical one of my knowledge, agrees with me today.

We have on this continent two races of bees well known to all, namely, Germans and Italians. These two races differ from each other very radically in many peculiarities; are superior to each other in different traits of character which bee keepers of this country highly prize. For years the question of superiority was

energetically discussed. That the best strain of the Italian bee, which is the long leather colored, are in many respects superior to the pure German bees, is undoubted. This conclusion was not arrived at and accepted, however, without noting and declaring that the brown Germans possessed qualities and peculiarities which the Italians did not—qualities which we could not set aside without feelings of the deepest regret, especially from a dollar and cent point of view. I have no hesitancy in saying that judicious crosses, not hap hazard hybridizing, between the best strains of the German and Italian bees give us the best bees known to honey producers for either comb or extracted honey. Father Langstroth credits to the German bees, or black bees as they are often called, when compared with the Italians, the following superior traits: First, they commence to breed earlier in the season, build the straightest and most worker comb, enter the surplus boxes more readily, make the whitest comb, are less inclined to swarm and more sensibly affected by the loss of their queen. In addition to this Professor Cook, after careful experimenting, has credited them with being more hardy and likely to survive our most trying winters.

I would like to add that these black or German bees, being so different in the nature and disposition from the Italians, have many other points of advantage to the bee master which are all of advantage and aid him in his success and comfort in the apiary.

Let me mention a few. They alight sooner when swarming, which often saves mixing the swarms and its consequent troubles; they hive more readily, each one seeming to be determined to be the first in; they drive up into the forcing boxes in less than half the time used by Italians when making artificial swarms; they

mind the admonitions of the smoker much more promptly than Italians. On the other hand Father Langstroth rightly credits the Italians with sticking to the combs better, being of more courageous disposition, longer proboscis, that they suffer far less from the ravages of the moth, are less likely to rob and be robbed, will remain in any new locations better than the Germans, greatly facilitating short removals, and are less likely to quarrel when different colonies are united. Let me add that being less liable to take wing when being handled, the operator is less likely to be stung, as nearly all stings are received from bees that take wing. Also that the queen is more readily found and that they are less liable to build brace combs about the tops and ends of the frames, leaving them easier to manipulate. It was over ten years ago that I conceived the idea and began the work of crossing the best strains of these races, weeding out the bad and holding fast to the good qualities of the two races, so far as possible, aiming to build up a better strain than before, if possible. My success has been such that none of my work has given me much greater pleasure and cause of rejoicing than that of breeding up this strain. I am more particularly pleased to find now, that many practical honey producers are loud in their praise of this cross of bees. When the crossing is controlled by a judicious person the bees which result are certainly as good natured as the most docile Italians, and I have thought, and so have many of my students, that they are better. I recommend these bees for the production of either comb or extracted honey.

I cannot speak from experience regarding the comparative merits of Cyprians, Syrians and Carniolans, because, knowing the qualities of the bees in my apiary, I not only declined to

bring in any of these new races but I worked successfully against their being brought into any apiaries in this locality; but from what I have observed, conversed and read of the experiments of others, I fully believe that we have been damaged to no small extent by the introduction of them. Another thing; I have seen those who certainly ought to be the very best judges completely fooled by Italian bees for Cyprians and Syrians, and the German bees for Carniolans. I remember well where a pure stock of German bees was exhibited for Carniolans, I being in the secret of course, and several claiming to be well posted spent some time pointing out the physical markings and peculiarities of Carniolans. Let us make haste slowly and be sure we have something better before we replace the good blood we now have in *Apis Americana*. This will do, Mr. Editor, for my initial essay for your valuable paper, and next time I will try to say something as to how I rear my queens and drones so as to accomplish almost wholly all I could do were fertilization in confinement a fixed science, and I the master of it.

JAMES HEDDON.

Dowagiac, Mich.

#### **Purity of Queens.**

The truth of the "Dzierzon theory" is universally admitted, and while its development has been of great advantage, still it has been the means of causing some injury; not necessarily so, to be sure, but because more is claimed than is really admitted by the author. I refer to pure mating of queens. It has been claimed that because an unfecundated queen does produce drone progeny, that the drone progeny of an impurely mated queen cannot be affected by fecundation, and that no ill effects can be produced by allowing a pure queen of any race to

mate with drones from a queen mismated. Some claim this idea to be correct. I deny it. I do not believe that the worker progeny of a queen fecundated by a drone from a mismated queen can be absolutely pure, consequently the queen progeny cannot be relied upon as pure. I do not propose to argue the question here; it is enough for my purpose that there is a doubt on the subject; and, such being the case, the remedy is simple.

I deem it as necessary to carefully select the mating drones as it is to select queens from which to breed, and I believe that until as much care in selection is taken in the one case as in the other, queen breeding will not advance as it ought, and any given race of bees will deteriorate. But even if I am not correct, the fact remains that blood will tell, and that breeds can only be kept pure by mating among themselves. The queen breeder today who desires to gain a name for himself must do as do the breeders of horses and cattle, viz.: select the best possible specimens from which to breed, and must pay as much attention to the male as to the female line, taking no chances and running no risks. Can any of them say they are doing this when they allow the drone progeny of a mismated queen to fly among his queens? I think not, so long as there is any doubt on the subject; and I believe, too, that bee keepers are so waking up to this matter that only those queen breeders who run no risks at all in mating their queens will gain paying patronage. J. E. POND.

No. Attleboro, Feb., 1889.

The novice is often deceived while watching for the mating of queens. The undertakers of a hive will frequently manœuvre in a peculiar manner while carrying off the dead, and cause many to believe they have witnessed a mate.

#### Queen Cells in Supers.

Referring to Q. B. J., page 21, I tried years ago raising queens in upper story supers, and found sometimes that the bees would start cells there and bring them to maturity, but it could not be relied on, as too often the cells were destroyed.

DR. C. C. MILLER.

#### DR. TINKER'S ANSWER.

In my late essay for the Michigan convention, published in the American Bee Journal, page 26, it is stated that bees have not in my experience torn down queen cells placed in supers above a wood-zinc honey board, "whether in swarming time or not." And so they have not, and my experiments in the matter have been very numerous, extending over three seasons with my strain of Syrio-Albino bees. Whether other strains of bees may, I am unable to say. But I think it will be found to be the rule that they will not.

I do not doubt that there may be found exceptions to the rule, as there seem to be exceptions to all the rules heretofore applied to the actions of bees. The Cyprian bees, for instance, have been known to throw out the brood and even tear down the combs of other colonies, when placed in their hives. Such colonies might be expected to tear down queen cells placed in supers as stated.

However, one or two parties have claimed to have had cells so placed torn down, presumably by Italian bees. But in all these cases there is a strong probability that the cause of the trouble lay in the queen-excluding zinc used. We all know the result where the bees allow the queen to supervise the attention to a lot of cells. Should the zinc in a honey-board be faulty and admit the queen into a super where there were a lot of cells they would be torn down almost without exception.

This leads me to remark with regret that much of the so-called queen-excluding zinc sold is simply drone-excluding zinc and of no value for any other purpose. The zinc I have used in all my experiments is queen-excluding, for I have many times had virgin queens try for days together to pass my wood-zinc honey-boards and fail; and neither virgin or laying queens have ever passed the brand of zinc I use, among the hundreds of others who have used it that I have heard of.

It must not be inferred that because we do not usually find laying queens or brood in supers that they do not survey their domains, going through the supers frequently. I have many times found them in the sections where excluders were not used, when the supers were lifted off so quickly that there was no possibility of their being frightened into them before the section super was lifted.

When any one shall find queen cells placed in supers torn down above a reliable queen-excluding honey-board I shall be pleased to note an exception to the rule, and not till then.

DR. G. L. TINKER,  
New Philadelphia, O.

**Virgin Traffic.**

We have received several circulars from different breeders. We notice in many the head, "Virgin Queens." Round goes the world.

Shipping, exchanging and trading in virgin queens will be an increasing business in the near future.—Bee Hive.

The virgin queen business will undoubtedly increase the coming season. Friend Jones of the C. B. J. says: It is generally admitted that the introduction of virgin queens into the apiary will receive a great deal more attention in the future than it has heretofore.

We are going to furnish virgin

queens from our best home-bred or imported Carniolan or Italian mothers for 75 cents each. Persons ordering will please state which they would like—home-bred or imported, Carniolan or Italian, all same price. With each one will be sent a printed circular telling just how to introduce a virgin successfully.—H. E. & E. L. Pratt, Marlboro, Mass.

Frank A. Eaton says: I predict that the virgin queen trade will be one of the most important in the near future.

Dr. Tinker says: I believe the virgin queens to be the most valuable for infusing new and desirable blood into apiaries.

Of course we would prefer selling queens in this virgin condition, it lessens the cost more than the reduction in price; but the results will not generally prove satisfactory.—Honey Producer.

Neighbor Alley of the Apiculturist says: "With the new methods for introducing queens (either virgin or fertile) the trade in unfertile queens is made practical.

"There are some points to be gained in introducing virgin queens. I will state two of them: 1. Beekeepers who purchase them will be sure of getting no inbred queens so far as those are concerned. 2. One may have choice drones in his apiary which he would like to have mate with some fine queen of a superior strain."

**Shipping and Introducing Cages.**

In a recent number of the A. B. J. the Peet cage is given a rap because of the tin slide being hard to pull off when the queen is being liberated. This is true with many makes. But to avoid all this trouble and save punching holes into the brood combs, just turn the screen cloth back enough to allow the queen to pass and the

bees will remove what candy there is and her majesty will issue at her own pleasure. Merely hang the cage between two combs by one of the tin points and leave it there until some future manipulation.

If the seventy-two hour method is to be used, leave the colony queenless for three days; then slip the cage down near sundown with the corner turned over as stated above. Don't open again for five or six day unless you smoke them pretty thoroughly. If there is much candy left where the screen cloth is turned up, remove a good part of it before placing it with the hive.

By the direct method, there can be none too much candy in the passage and if it is plugged in hard so much the better.

#### Hybridizing Bees.

A correspondent in the A. B. J. asks:

1. Having 100 colonies of brown Germans, would crossing the queens with selected Italian drones improve them as honey-gatherers? 2. If an improvement, could drones be purchased by the pound from selected stock? 3. Would drones be accepted, or could they be united, and be all right in the hives? 4. What would drones be worth by the pound?

This might be answered in the following manner:

(1.) The cross is a very desirable one.

(2.) Drones could be purchased by the pound at any large apiary where the drone-comb has not been trimmed out closely. Alley's drone-trap is the implement to use in securing them. They might be gathered up at intervals and put by themselves on to combs behind excluding zinc with enough queenless bees to make them think that their presence is very desirable.

If I was a large honey-producer and wished to infuse new blood, I

should try the experiment and buy a few pounds of drones from some good breeder and let them loose during mating time. I certainly would do this if my bees were all blacks.

By the use of large perforated metal at the entrances of the black hives, we could expedite matters and bring the foreigners into power. Drones by the pound would do away with all the expense of rearing, caring for and introducing queens.

By the old method (buying an Italian queen) it would be the next season before drones would show up to any extent, and one queen could not produce drones enough to amount to much then. We would have to charge the blood by superseding natives with foreign queens. These are liable to mate with black drones, which is very undesirable. To the inexperienced, queens are something very mysterious.

(3.) Drones will be accepted in any colony that has cast a swarm.

(4.) About \$3 per pound would be the price. Hand picked drones would be worth almost any price, of course.

The above is a new industry, I think, worth looking into. It is a step toward elevating the standard of races by the male as it should be. There may be some merit in "drones by the pound" as well as "virgin queens."

#### EXPERT NOVICE.

G. M. Doolittle says: "There is no need of special passage way arrangements for winter." This is so with strong colonies.

Dr. Miller says: "I have made the mistake of raising some very poor queens by giving the bees no unsealed brood whatever, except some just hatched, or eggs alone, and then supposing they could not raise queens from anything but very young larvæ."

**Dividing by the Doolittle Plan.**

After trying nearly every plan of artificial increase which has ever been given, I am satisfied that none of them will give as good results as will natural swarming.

None of the plans of artificial increase should be used till the hive is quite well filled with bees, and the bees themselves are preparing for swarming.

If there is but little uncapped honey in the hive, set some to running by scraping off the caps of some of the sealed honey. Find the queen and cage her so she will not be lost.

Having both of the above done, close the hive and beat on it with the fist, at the same time blowing smoke in at the entrance, just enough to frighten back the guards. Give the hive several sharp blows enough to cause the bees to thoroughly fill themselves with honey; and if more than one swarm is to be made, go to the next hive and prepare them in the same way. When this is accomplished, set the cap of any hive on a wide board a little way from the old hive (any box will do), raise one edge a bee-space and proceed to shake the bees off the frames till you think you have about three-fourths of them. Lastly, take the frame having the queen on it, and, after uncaging her, shake her and the bees off this frame, letting them run with the others. The returning bees from the field and what were left on the combs and about the hive will make the colony in about the same condition it would have been in had it cast a swarm. Next take the cover having the bees in it; carry it to the shade of some tree, and, after setting it down, lean it up against the tree with the open side out, exposed to the light. Leave them thus for about an hour, when they will conclude they are a separate colony, and will behave just like a natural swarm. Now hive them

as you would a natural swarm, and they will work the same, or as nearly so as is possible to have bees do outside of natural swarming.

The next way, and the one which I prefer when I have laying queens to spare, is to proceed the same as above till you get ready to shake off the bees, when they are to be shaken into a box instead of in front of a cap. This box is to be made of a size to hold about half a bushel, the two sides of which are to be of wire cloth. In the top of the box bore a hole of the right size to admit the small end of a large funnel, such as is used in putting up bees by the pound, and over this hole is to be fixed a slide so that it can be closed as soon as the bees are in. Shake the same amount of bees down through it into the box, but instead of putting the queen with the bees, uncage her and set the frame back in the hive. Now carry your box of bees to your bee-cellar, and leave them undisturbed for four hours, get a queen in a round wire-cloth cage, and immediately let her run through the hole into the box. Now close the hold and leave the bees till sunset or the next morning, when you will find them clustered and ready for hiving, the same as a natural swarm would be, having accepted the queen which you gave them, as their own mother. Hive as before, and the work is done.

In using this latter plan it is best to take the bees between the hours of 10 and 12 A. M.

G. M. DOOLITTLE, Gleanings.

In all my experience I never knew of but one queen dealer who advised rearing queens from three-days-old larvæ, and that person was driven from the queen-rearing business on account of the inferior quality of the queens with which he supplied his customers.—Henry Alley, Apiculturist.



**Prolific Queens.**

A good prolific queen will in her prime lay from 2000 to 3000 eggs in a single day in the height of the honey harvest, and I believe, as a rule, her second year is generally thought to be the most prolific. And yet I have had queens three and four years old work just as smoothly as the best queens one and two years old.

When a queen has grown old and is no longer prolific she will be superseded by her workers and a new one will be reared in her place.

If the new queen fails to become fertile before she is twenty-one days old she remains through her life sterile. Hence all such queens lay eggs which produce only drone-bees, and if left to themselves the colony will in time be ruined.

Some bee-keepers think that the workers will, unaided, attend to the destruction of feeble queens, but at the present day a large number of the more progressive apiarists prefer to do this themselves (and I am one among that number), thus insuring at all times to have young and vigorous queens.

To get the best results from Italian bees we must get a good strain to start with, and then by careful selection rear our own queens and be constantly on the look-out for those having the most desirable characteristics and to propagate from them only.

At present I know of no better strain of Italian bees than the leather colored ones, taking all things into consideration.

I fully endorse and believe that Friend Doolittle clinched the right idea when he said that American-reared queens are the best. I think I am safe in saying that the Americans stand at the head of the world in successful queen rearing.

C. E. WOODWARD,  
Newbury, Ohio.

**In-Breeding.**

Eugene Secor believes in infusing new blood. It seems to him that the history of modern bee-culture proves the desirability of infusing vigor into the apiary, by the introduction of foreign and unrelated queens. He doubts that bees will prosper for an unlimited time if in-breeding is practiced.

The Dadants speak of a case of "in-breeding" where the drones were white-eyed and stone blind.

We think that stock direct from imported queens, as a general rule, is a little more hardy and vigorous than that produced from queens inbred so many times in our own country. The great tendency with breeders is to run for color, i. e., "nice yellow bees," "four-banded bees," etc. What we want is not color, not bands, so much as bees for business—bees that will produce big crops of honey.—Gleanings.

**Read and Think.**

I feel safe in saying that a man may learn more about bees in one year by careful study of the excellent books available, and the intelligent application and practice of his studies, than he would in twenty years without reading, relying upon his own experience and discoveries for information and success.

Life is too short to be wasted in solving mysteries that have already been solved, and in making discoveries that were given to the world through the printing press long ago. Therefore, let us make a "short cut" to proficiency in bee-keeping by reading the best bee-books we can get, and the bee-papers that are published, and at the same time study our bees, visit our neighbor bee-keepers, attend the bee-meetings, talk bees and think.

J. M. JENKINS, A. B. J.

A loose, slack-looking apiary is unpardonable.

**CAPPINGS.**

Protection to face and hands are unnecessary while working with Carniolans.

If you want to invest profitably in Florida, address L. O. Garrett, Orlando, Florida.

Bee-hives have been pretty well discussed. Bees come next; then let us have your method of securing comb-honey.

If nucleus hives for queen fertilization are hidden among tall grass or weeds, trim out enough all around them to give a free circulation of air.

Could we not get to queen rearing from ten to fifteen days earlier by sending south for drones by the pound, if they could be furnished?

A writer in January number of the British Bee-Keepers' Adviser has noticed drones crowding in a given area at time of queen fertilization so as to resemble a swarm.

In the past we have destroyed and cut out hundreds of dollars' worth of drones. This is a woeful waste. What can we do with them? Can't we turn them into cash?

Any woman or man who has the unmitigated, metallic cheek to claim Father Langstroth's great invention of controllable hives should be condemned. Mrs. Lizzie Cutting is one of this sort.

There is nothing that arouses the anger of bees and causes a quicker resentment than crushing them between combs and under hive covers. By using some kind of mat over the frames, a large part of this difficulty will be removed.

When E. France wishes to move his bees, he picks the hive right up and sets it just where he wants it without any "hitch-and-go-fetch-it" business. So do we, after smoking and drumming a little. Place something so as to obstruct the entrance.

To secure cells above a full stock, you must use perfect excluding zinc.

Brother Jones doesn't tell us how he is getting along with the "Preserving surplus queens" experiment.

Rev. C. M. Herring said: A secret of success lies in the bee, and mainly in the blood. All bees, like all men, are not of equal value.

It seems very probable that pollen is the food for the bees, which builds up the body, while honey is the fuel, which warms and moves it.

We would do well if we read G. W. Demaree's article, on another page, over twice. There are points there that should be impressed thoroughly upon our minds.

We think Mr. Heddon a little rough on the Carniolan bees, but then we want both pro and con on these important matters. See article elsewhere.

One great secret in queen rearing is liberal feeding to the cell-building colony. Neighbor Alley says: "It is as necessary as feeding a cow that is giving milk and producing several pounds of butter per week. A thin syrup should be used, flavored with a little honey."

It is time the construction and painting committee should act. The season is close at hand. Advertising and circular printing should be attended to earlier than usual. We predict an early spring. S. T. Pettit gave Priority of Location a thorough going over at Ontario convention.

I have found that, to remove a laying queen, in the height of her laying season, from a populous colony, and ship her, generally speaking she is a failure, to a large extent thereafter, as a prolific layer. It has been my practice, the past year or two, when expecting to ship a queen that is in a strong colony, and a prolific layer, to either confine her to one or two frames

in her own hive, or remove the hive to another stand, leaving the queen and two or three frames on the old stand for a few days before shipping her. No matter how prolific they were before shipment, they are the same when received by the purchaser.—Abbott L. Swinson.

We have received the new Revised Langstroth Book. It is an excellent work, splendidly printed, completely indexed, profusely illustrated and filled with practical matter from the pens of Charles Dadant & Son of Hamilton, Ills. Every bee keeper should possess a copy of this ever famous and world renowned work. We shall review the queen rearing department later.

Cook Brothers of the cupola windmill say: "We are more than pleased with returns from what little advertising we have done in the Queen Breeders' Journal." Good returns will come from any advertised article if it has merit. The Cook mill is a grand thing. If you are interested in windmills, you will do well to send for Cook Brothers' circular. See adv. on last page.

Judge W. H. Andrews said, in American B. J.: "Ninety-five per cent. of all the bees in North America kept by professionals and their neighbors are just mongrels." What think you of this, ye queen breeders? We think that the statement is rather rank to go abroad much. It will take a very finely pointed pen to draw a line between purity and hybridity. The Americans have elevated the quality of all races that have been brought to these shores. They should receive encouragement rather than disparagement.

In the advanced age of this wide, developing pursuit, but few ideas can be advanced that have not already been thought of; but the days of criticism are not over, therefore many are

fearful to make public their theories, for fear of the ordeals of the thinking public. Perhaps nothing in the whole bee-industry has received more careful thought than queen-rearing. [G. W. McGUIRE, A. B. J.]

A querist in the Apiculturist asks: "What are those four-banded Italians advertised in some of the papers?" Neighbor Alley answers: "There are no four-banded Italian bees that I know of. No doubt the bees so advertised are very handsome, but none I ever saw had over two bands. That is, I call it two bands, while other people would say that they have three bands. I count only the rings that are on the back of the bees." They are very handsome. Mr. Alley is correct about the bands, but leaves the wrong impression. These bees were wrongly named; they are nearly "solid yellow," without being divided into distinct bands with dark rings as with the common Italian. We have some where as high as the sixth scale is tinged with a bright, golden, soft yellow.

With regard to queens reared in supers, Dr. Tinker adds: If the young queen be left in the super until after the eleventh day, or until she is ready to mate, the bees will, for some cause, ball and kill her, and that is the end of all queens hatched in supers left to themselves above a wood-zinc honey-board, except as stated in next to the last paragraph on page 22. Although the young queens will destroy the old ones, as a rule, as stated, still I believe that it is better to remove the old one, if it is desired to supersede her, and then let the young queen have full sway, as it seems probable that exceptions will be found to this rule, in which the young queen, after destroying the old one, may herself be balled and killed. At all events, contests between queens should be prevented as far as possible.

**The Queen Breeders Journal**

Is the name of the last bee-paper out. It is published by E. L. Pratt of Marlboro, Mass. I really hope that those who have the management of the above publication will meet with success. It is a nice little paper and worthy of support.—[Apiculturist.

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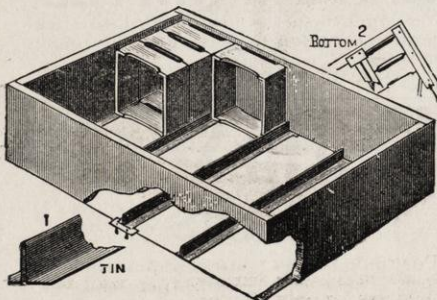
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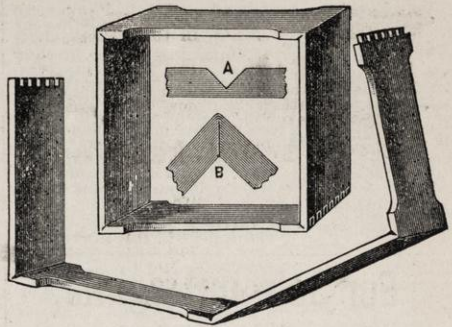
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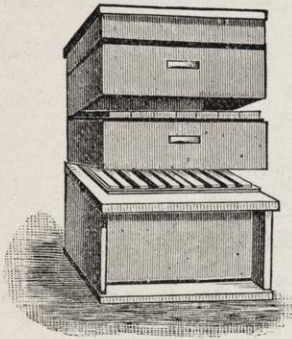
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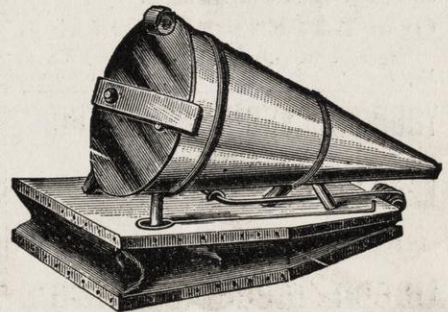
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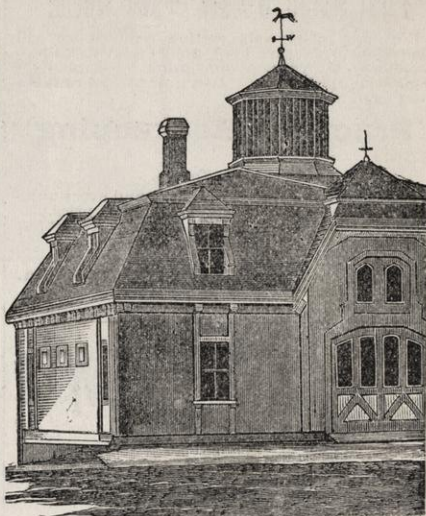
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