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## **Queen breeders journal. Vol. 1, No. 2 February, [1889]**

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# Queen Breeders Journal

PUBLISHED MONTHLY BY E. L. PRATT AT MARLBORO, MASS.

Vol. I.

FEBRUARY,

No. 2.

## **Early Queen Rearing.**

To get queens reared early, here at the north, is one of the most perplexing things to confront him who would please his customers, or the one who would like to change his stock before the honey harvest comes on. Nearly every year I get letters the latter part of April and the fore part of May, saying: "Enclosed find so much, for which send me queens to that amount, at once. I wish them immediately to introduce to queenless colonies, or to help me in making artificial colonies." As it is impossible to rear queens in April, and very few early in May, in this locality, I have been in the habit of writing back that it would be impossible to fill the order at the time requested, but if they could wait till I could get to them, I would send a queen of the next higher grade than they had ordered, to in a measure compensate them for waiting. The most of those ordering are glad to do this, but some get cranky and demand their money returned at once, which thing I always do. From the above it will be seen that early queens are of great importance, hence I have bent every energy in the past to get queens as early as possible, consistent with good quality. In this article I propose to tell the reader how I have worked it. The first step necessary toward queen rearing is to get some young drones at least a week

before the queens will hatch, for it would be in vain to get queens without some provision for their being fertilized. The rearing of early drones is not always an easy thing in this latitude, for in spite of all the coaxing I can do, it is often May 20th before any drones are seen about my apiary in late seasons. The best plan I know of to secure drones, is to place a frame of drone comb in the center of a few of my best drone rearing colonies, in the fall, when preparing them for winter. If this drone comb is heavy with honey so much the better, for queens are more liable to use them if immediately below sealed honey, than they are where no honey is in the comb. If none of the colonies, having drone comb, are strong enough to use them early in the spring, some frames of hatching brood from other colonies should be given one of them as soon as it can be spared; then by a little feeding of warm syrup every night, the queen is generally coaxed to lay in them, and the bees to feed and take care of the larvæ. After the drone brood has been sealed for about a week we are ready to commence to rear our queens if pollen is plenty. It would almost seem needless to say that no one should attempt to rear queens till pollen has become abundant, even if we do have sealed drone brood before this. I never could rear queens which I would be willing to use in

my apiary earlier than when pollen was plenty. The first pollen has a wonderful effect along the line of causing the bees to prepare chyme for the brood in abundance, while before they were only feeding the larvæ just enough to supply their daily wants. Good queens can not be reared unless the queen larvæ are liberally fed, and such liberal feeding is only done when pollen is being obtained from the fields. Having the capped drone brood and the pollen, remove the queen from one of the most populous colonies in the yard, and send her off to some customer who wants a queen that has been wintered over, or use her otherwise. A feeder is to be placed next the outside comb, and the colony left for three days. During the forenoon of the third day, I prepare an old comb by fastening some ten or twelve embryo queen cells along the under side of a large hole which has been cut in it. The cells are fastened to the comb by dipping their bases into melted wax, and at once setting them against the comb. These cells have been clipped from the combs as I have come across them while working with the bees, so that at all times I have a supply on hand. Just after dinner or at about one o'clock, I go to the queenless colony and take all their brood away from them, giving it to other colonies that can care for it, when two combs which are in the hive having the most honey in them, together with the most pollen, are placed up close to the feeder at one side, leaving space between the two combs for a third comb to be placed. The divi-

sion board is now brought up so as to make all as snug as possible, when the hive is closed. I now go to the colony containing the best queen I have and get a little piece of comb containing 15 to 20 little larvæ which should not be over 36 hours old. This piece of comb is taken to a room in my shop which is kept a temperature of from 85 to 90 degrees unless the weather is that warm outside, for if we would have good queens they should not be chilled in any of our manipulations in getting them. Arriving at the room, the little larvæ are lifted out of the cells where they are, together with as much of the food which is in the cell as possible, by means of a goose-quill toothpick, having a curved point. Then they are carefully deposited in the embryo queen-cells which we fastened to the comb in the forenoon.

If the day is at all cool, this prepared frame is wrapped in a warmed cloth and carried to the now hopelessly queenless hive, and lowered into the space left for it when taking the brood away. The bees will now be found in the greatest agitation imaginable, and will tell you by their joyful hum, upon receiving the prepared frame, how glad they are that they have something upon which to bestow their caresses.

The prepared queen food, which has been accumulating since you took the brood away, is at once liberally fed to the prepared queen larvæ. The colonies should now be fed liberally with warm syrup for the next five days.

If all of this has been done as it

should be, you may expect to find as many nice sealed queen-cells, when looking for them on the fifth day from the time you gave the prepared frame, as you gave cells, lacking one or two; sometimes all; but usually one or two of the larvæ will get injured so that they will be destroyed. When ready to hatch the cells are to be given to nuclei, or otherwise cared for, so that all are saved. When the cells are taken away, go to the colony to which you gave the most of the brood taken from this first colony used in queen rearing, and get the frame of brood having the queen on it, taking bees and all; then take out two more frames of brood, and shake the bees off of them, letting them (the bees) run into the hive, after which adjust the frames and use this colony to rear the next set of queen-cells from.

Now take the three combs and set them in the hive from which you took the cells, and hang the comb the queen is on between the two combs of brood, closing the hive. In this way colonies which rear queens are kept queenless only about twelve days, which is quite an item at this time of the year. This is the only plan that I know of by which *good* queens can be reared very early in the season.

G. M. DOOLITTLE,  
Borodino, N. Y.

It is the verdict that the queen is not generally injured by stinging her rival. But you must take good care that this stinging business does not occur among any of your nice queens, for fear of bad results to both.

### A Hearty Welcome.

CHRISTIANSBURG, KY.

Dec. 16, 1888.

E. L. PRATT, Esq.,

DEAR SIR: Allow me to thank you for sample copy of Q. B. Journal. A monthly devoted to this fascinating branch of the bee business ought to receive a support that will make it an honor to its publisher, as well as fairly remunerative for outlay of capital and brain labor. There are thousands of bee keepers who want light on the art of queen rearing, and if you can get your Journal before them they will certainly avail themselves of its help, where they will find everything pertaining to queen rearing without being compelled to glean their knowledge pertaining to this specialty from a great variety of reading matter. There is a great deal to learn about queen breeding yet. This may be inferred from the great variety of plans given to the public. The field for experiment is a wide one, and fascinating enough to keep up the liveliest interest. When rearing queens, very many ingenious manipulations may be applied. For instance, the comb containing larvæ of proper age may be cut into narrow strips, then into little squares not larger than an ordinary vest button, and containing but a single larva, or the strips may be left to any convenient length, destroying two of the grubs, leaving one, so as to have the cells in good shape to remove or transfer, when they are to be cut out. Melted wax may be used to fasten the bits of comb in place, or slender wood pins may be used for that purpose. There is no limit to manipulation. But

when good queens are to be reared, the essential thing lies back of all these. It is prosperous condition. The queen rearing (cell building) colony must be prospering at the time they are building the cells and nursing the royal family. I mean by this that the bees must be gathering honey either from the flowers or from a feeder.

G. W. DEMAREE.

### **Large, Vigorous and Active Queens.**

A method of rearing queens which has given me excellent satisfaction is to take away queens and all unsealed brood from a colony and supply the select larvæ by pasting the strips of combs to several cross bars, or slots cut into the comb, cells downward, and destroying every other larvæ with a match head and then shaking bees from other hives at a distance of about two feet from the entrance, from where the old bees will return and the young ones enter the hive. Enough should thus be supplied to literally fill the hive, and if honey is not coming in plentifully feeding should be resorted to. By this method we have had uniformly large, vigorous and active queens, and they hatch sooner than some of the weakly things that are permitted to hatch and become fertile, too often, where the colonies are simply made queenless and the cells thus procured used in nucleus, or the first one that hatches is allowed the possession of the hive.

CHRISTIAN WECKESSER,  
Marshallville, Ohio.

The Q. B. Journal would make a nice present for a friend.

### **Chloroform.**

C. E. Woodward in the A. B. J. says:

"Chloroform is a colorless, volatile liquid, and is very powerful for man or beast, and should not be allowed in the hands of any child.

"Get the chloroform and three sponges, and saturate one of the sponges with the liquid; dampen a sponge with water, and put the sponge into the bee-smoker; then put in the sponge saturated with the chloroform, and then put in the third sponge. Be sure that you have the sponge saturated with the chloroform between the two sponges dampened with water. This will hold the strength of the chloroform.

"Wet a cloth with water and cover over the frames of the hive that is to be manipulated, and cover the hive up again. Now take the smoker and give the bees two puffs of the chloroform. Then go to the next hive and operate on it as before. If you are uniting bees, then go back to the first hive and give them two puffs more. By this time the bees will be "silly," and the queens may be allowed to run in, and all will be right.

"The bees may also be united with perfect satisfaction, and without loss. No consumption of honey is needed, no sweet solution is wanted, and the perfume of cremated wood is uncalled for. The time is fast approaching when the old 48-hour-method will become obsolete."

W. H. Kirby talks on the same subject in the last Canadian Honey Producer.

**Heredity.**

The question of "heredity" in the "bee business" is a matter that practically relates more to the bees than to their keepers.

A man may have had the bee keeping blood in his family for generations and still not be able to become a successful bee keeper, while a number of generations of bees from some fixed line must eventuate in improvement.

What we want is good queens. We can get cheap queens any time, and perhaps can get good cheap queens once in a while, but that is not the rule. In order to get good queens the same rule of breeding must be applied that we apply to any other class of animals, viz., breed from the best of specimens and continue to select from the word go.

By so doing, we shall be enabled in time to so fix certain traits and characteristics as to enable ourselves to warrant their reproduction in every instance with the same infallibility that we now warrant our Jersey cattle or Percheron horses.

Let our queen breeders stick closely to the point of breeding only from the best specimens, taking both queen and drone mothers into consideration, and there will be no trouble about the bee business in the future. Who will deny the above propositions or attempt to depart from the principles herein set forth?

J. E. POND.

North Attleboro, Dec. 6, 1888.

Your Full Address, plainly written, is very essential in order to avoid any mistakes.

**Getting Cells with Queen Present**

If a colony of bees will tolerate and complete cells above a queen-excluding honey board while there is a laying queen below, why can't we get all the natural cells we desire at all times during a harvest?

Have not experimented along this line, thus can not conclusively certify that it is possible, but after reading Dr. Tinker's paper, as read before the Michigan State Convention, am led to believe that we can prepare a frame of cell cups, after the Doolittle plan, put them into an upper story with hatching brood, divided from the colony below by queen-excluding honey board and have said cells cared for and worked on while a fertile queen is at work below.

The method will be of value as a nursery plan of hatching queen cells, even if all else about it should fail.

If the embryo cells are not worked on, the old methods could be used long enough to get cells well under way, then transfer to another hive or return the brood and old queen, excluding the cells with zinc.

The points brought out by the Dr. are valuable in many ways. About the "Management of Cells" with his new system, he says:

The bees of the colony to which cells are given will complete and care for them. I have yet to find one torn down, whether in swarming time or out. Nor does the presence of the cells incite to swarming, as the queen is unaware of their presence.

If I wish to supersede the queen in the lower part of the hive, I leave one

of the cells to hatch, and do not disturb the hive (unless they swarm) till about the eleventh day. I then go to the hive, and I will nearly always find the young queen on the honey-board, trying to get below. I place her below, and the work is done, as she will at once destroy the old one.

If the queens are kept apart, so that they cannot touch each other, it appears that we may have two or more laying queens in a hive at one and the same time; but I think that the bees attending each queen must have a separate entrance.

As to the drones that hatch from brood placed in the supers, I draw back the cover a little, or raise it up to let them out. If this is not done, we shall find in a short time only the round shells of their thorax, like so many beads, on the honey-board.

#### **Rearing Breeders.**

I am an advocate of using natural swarm cells for select queens, and those to be used for breeders, not because it is the natural way alone, but because I am satisfied we can get vigor and good health into our stocks in no other way known at present. When bees are suddenly forced to construct cells, they do not build with the care and deliberation they would if left to supersede or swarm. This is proven, I think, by the many cups or started cells to be found in any populous colony at any time during the season, showing that they require time and care in their construction; else why do they commence them before really needed. Surely, they have other work just as important, etc.

When a cell is hastily constructed,

especially if from an enlarged worker cell, even when chosen larvæ is used, they are, 99 out of 100, ill-formed to a certain extent, as can be noticed from impressions left on vital parts of many young queens. I have never noticed these deformities on queens from natural cells yet. Most of these hastily formed cells are too cramped for room, dwarfing many also incapacitating more. For a dollar we cannot really afford to rear with so much care but we can improve our methods. Select from our best and see that they are mated with vigorous selected drones, thus giving a fair equivalent for the money and yet receive a just return for our capital and labor invested.

EXPERT NOVICE.

#### **Young queens Going Back.**

G. M. Doolittle backs up S. C. Perry's statement about a young queen going back to the hive from which she was taken some two hours before and killing the queen left there. He says he has had several queens just hatched go back to the old hive. He explains it by saying that it is on the same principle that young bees just commencing to fly go back, even if they have never seen the outside of the hive before. They are accompanied by their older sisters who know the road. The babies and young queens are shown the way home by the older bees.

With Mr. Doolittle's caged-frame-of-brood plan of making nuclei, not a single bee will return, although nearly all the bees and queens may take wing while changing them from the cage to the nucleus hive.

**Breeding Notes.**

Our Carniolan yard lies about seven miles east of our Italian, in a strictly unoccupied field surrounded by high hills on three sides. We have no hibredic mates in this yard. We aim to have only vigorous, select drones flying at mating time.

When we infuse foreign blood we aim to do it via male rather than female. This is much harder to accomplish, but it pays in results. The cross is more decided and characteristics of the race are more deeply stamped.

An inferior queen that has mated with a vigorous, well fed and healthy drone will give decidedly better results than had the cross been vice versa. More good queens are ruined at mating time than we are aware of. Don't allow your daughters (queens) to associate with Tom, Dick and Harry.

We hardly recommend keeping a breeding mother in a nucleus. We believe they should be kept in full vigorous stocks with plenty of live and healthy bees to care for them and give them that undivided attention not attainable in small hives with few bees.

Extraordinary breeding power is far from a fault in queens of any race with us.

Don't neglect the drone hive; have it as well up to the mark as the queen hive, and better if possible.

Handle the eggs and young larvæ to be used for queen rearing with as much care as you do a cell. Don't use larvæ from a comb that has been shaken to dislodge the bees. In fact, we don't advise shaking combs con-

taining young larvæ at all when it can be avoided. Use the brush more freely.

S. L. Watkins of Placerville, Cal., has found that a cross between Italian and Carniolan gives the best results when working for comb honey. He also finds that the Carniolans do not participate in robbing and that they are second to none in defending their hives against robbers.

The only way to ship a really valuable queen is with a nucleus or one pound of bees. Never send them by mail in the common shipping cage unless you can afford to stand a loss.

G. W. Demaree says that by close observation he has found that queens mated late in the season lay but few eggs which are neglected by the workers. He does not believe the chyle feeding has anything to do with it.

Give plenty of attendant bees to every queen you send away. The more the merrier. The Peete cage will accommodate about twenty-five attendants and a queen.

Allen Pringle is of the same opinion as D. A. Jones, that crosses give better results than pure races. See other comments elsewhere.

**At the Fair in London.**

The following received prizes at the Western fair at London, Ont. : Best display of queens—1st, Mrs. John Rudd; 2d, J. W. Whealy. Best marked queen bee bred in Canada—1st, Mrs. John Rudd; 2d, R. H. Smith; 3d, J. W. Whealy. Greatest variety of queens—Mrs. John Rudd. Best colony of bees—1st, Mrs. John Rudd.



**CAPPINGS.**

This number of the Q. B. J. was printed on our bran new press made by R. Hoe & Co. of New York city.

We will be pleased to give space to facts with regard to getting cells, care of young queens, forming nuclei, shipping queens or bees, bees by the pound, preparations for queen rearing, etc.; in fact, anything that will help the breeders at large or their pursuit. Pour in the light; it is needed and will be welcomed by all.

Ernest has written a brief sketch of his father, A. I. Root. He also gave to the readers of *Gleanings* a biography of 21 noted American bee-keepers. This was all done while the big Boss was sojourning in California.

We should hardly care to experiment on valuable stock with chloroform. Drugs should be used with great care by the inexperienced. Don't use it at all on a nucleus that is to care for a cell.

G. M. Doolittle's advice is not to let the bees remain snowed under any length of time. Off with your coat and shovel them out.

The Canadian Honey Producer does the Query business up brown.

A cranky "bee crank" is the crankiest crank that ever turned the crank of an apicultural organ.

Who has noticed drones gathering in swarms near an apiary at some particular locality, day after day, as did Roland Sherburn of Lone Tree, Iowa?

The seventy-two hour method of introduction is considered infallible, yet we have failed many times with it. We have come to the conclusion that

if a swarm intends to accept a queen it will by almost any reasonable method; but if they make up their minds not to accept one, you must have a good stock of them on hand to get one in successfully by any method.

Don't waste your money on cheap imported stock. What is the matter with a first-class American queen for excellence? They are good enough for us. We advise improving what we already have and importing less.

The December number of the Review came to hand with Index, four extra pages and an excellent cut of W. Z. Hutchinson thrown into the bargain. The number is a work of art. The proprietor can well feel proud of his efforts.

J. E. Pond wants to know if there are any markings by which we can conclusively certify a pure Italian queen, the three yellow band method being of no weight whatever.

We have received the fourth annual report of the National Bee-keepers Union. Copies of same can be had by addressing the manager, Thomas G. Newman of the A. B. J., Chicago, Ill.

Carniolans are the favorite in England.

T. B. Blow thinks it will be admitted on all sides, that as far as scientific queen rearing is concerned the Americans stand at the head of the world. Amen.

F. C. Andrew, editor of the Spanish bee paper *Revista*, writes *Gleanings* that Minorcan queens are being tried in England by many leading bee men. It seems they barricade their entrances the same as at home. The

B. B. J. gave them full page space last month.

The Rambler, in Gleanings, rambled on to John Andrews of Pattens Mills, N. Y., who is an ardent admirer of the Carniolan race. He gave some interesting points about these bees.

The BEE HIVE came out in a new dress in January. Sickness in Mr. Cook's family was the cause of its delay.

G. M. Doolittle will talk about the purity of drones from mismated queens in the March number of the Queen Breeders' Journal.

Langstroth on the Honey Bee, revised by Chas. Dadant & Son, of Hamilton, Ill., shows the progress of bee culture for the last thirty years. It makes an entirely new work, and all who have read the former editions want this revision. 550 pages—16 plates. Portraits of the world's leading bee writers. Numerous new engravings. Nearly five hundred copies of this book have been ordered before the first copy is out of the binders' hands. We can furnish this book at \$2 per copy or the Queen Breeders' Journal for one year and the above book for \$2.35. Fire destroyed the first edition, causing a delay of about four weeks.

**Virgins.**

D. A. Jones, in the Canadian Bee Journal, says:

A large number of virgin queens are sold to bee-men who have queenless colonies to put them in, and we know of instances where much expense has been saved by using vir-

gins on account of the smaller cost compared with fertile or tested. In this way, if the breeder has to introduce them and wait until they commence laying, then remove and mail them, by the time the purchaser gets them we can safely calculate that five days have been lost to the colony, whereas had he introduced a virgin queen to his colony at the start, this time would have been saved. It has another advantage in avoiding in-and-in-breeding which is a point well worthy of consideration. We have shipped a very large number of carefully bred virgin queens, and might fill many pages with testimonials in their favor. It will not be a matter of surprise, if virgin queens carefully bred from superior mothers and tested colonies should become favorites with the purchasing bee men. By their use the buyer runs much less risk in introducing, as will be explained in due order.

**Imported Italians.**

From an examination (extending over a considerable time) of many apiaries, I have come to the conclusion that most of the evil repute that has fallen upon Italians has been brought about by the inferior queens sent. In some cases the breeders know nothing about their business, and procure the cheap queens which are sent so freely in the autumn, by going around and collecting them from the colonies condemned by the country people to be taken up for the honey; they get these and the bees for about a franc each. [T. B. Blow.

**The Queen Breeders Journal.**

The following friendly comments were given our new Q. B. J. :

**THE BEE-KEEPERS' REVIEW.**

In these latter days we are getting specialty down pretty fine. We now even have a journal devoted especially to queen rearing. "Vol. I, No. 1," of the Queen Breeders' Journal, looking bright and fresh, lies upon our desk. It is the same in price and size as the Review, but the type is larger and all the matter leaded, and this first issue is really creditable, both in appearance and contents. Our only fear is that there are not enough queen breeders to support a journal devoted especially to their calling; but then, a large share of bee-keepers are more or less interested in queen rearing, and perhaps there will be enough of them subscribe, in addition to the queen breeders, so that the Q. B. J. can make a "live" of it. We hope so, as this first issue shows that it is deserving of success. With pleasure we welcome it to our exchange list.

**CANADIAN BEE JOURNAL.**

The initial number of the Queen Breeders' Journal is before us. It is a well printed, snappily written paper devoted to the "improvement of queens," the best methods of rearing, etc. The specialists it seeks to reach are certainly not sufficiently numerous to support what we might term a trade journal, but bee-keepers generally will be interested in its pages, and if the standard of number one is maintained it will have the success we wish it.

**GLEANINGS IN BEE CULTURE.**

Queen Breeders' Journal is the title of a new monthly bee-paper published by E. L. Pratt, Marlboro, Mass. Volume I, No. 1, has just come to hand. In material and make-up it is creditable, and queen-rearers will no doubt find it to their advantage to subscribe. Price 50 cents per year. It can be obtained of the address as above.

**BEE HIVE.**

New England seems to be vying with the west in the number of her bee-journals; four at the present time, the last to appear being the "Queen Breeders' Journal." It is published monthly at Marlboro, Mass., and is 50 cents a year. It certainly has a field that is well worth its best efforts, and we wish it the success it deserves.

**AMERICAN BEE JOURNAL.**

We have received the first number of the "Queen Breeders' Journal," dated January, 1889. It is to be issued monthly at 50 cents a year, at Marlboro, Mass. It contains 16 pages, and is nicely printed.

**Minorcan Bees.**

We have had an opportunity of seeing the Minorcan bees and found them different in appearance to Carniolans, resembling more closely our common bees, except that they are much darker, almost black, and appear to have a more glossy surface. That they are very free with their stings we have abundant evidence.

The barricades were built up apparently of the usual materials, viz., propolis and wax, and extended the whole length of the entrance, which was about 8 inches long. We do not think the bees have been tried long enough out of their native country to speak positively as to their good or bad qualities; at any rate the past season was too bad to give them a fair chance. [British Bee Journal.]



STILLMAN B. PRATT, EDITOR OF THE "AMERICAN."

#### **The American.**

The AMERICAN is a weekly paper, nicely printed, devoted to Free Thought, Free Speech, Free Press, Free Worship and Free Schools. As the name infers it is strictly American, devoted to America and her insitutions. The editor, whose likeness you see above, is bold and outspoken on all questions of national interest. He is bitterly apposed to Rum and Jesuit-Plotters and heartily in favor of Freedom, Country and God. As a newspaper-man Mr. P. has had great success. The firm of Pratt Bros., with which he is connected, own and control many Suburban newspapers.

Our Canadian friends will find the AMERICAN especially interesting to them. Considerable space is devoted to Canadian reformation affairs.

The subscription price is \$2.00 per year, \$1.00 for six months, single copy 5cts. Send for sample. Address, THE AMERICAN.

Marlborough, Mass.

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#### **Our Club Offer.**

We will club the AMERICAN with the QUEEN BREEDERS JOURNAL, one year for \$2.25 or the AMERICAN for six months and the Q. B. J. for one year, \$1.35.

E. L. PRATT, Marlboro, Mass.

# The Queen Breeders Journal

E. L. PRATT, Pub., Marlboro, Mass.

A 16 page Monthly devoted to Careful Breeding and Queen Rearing. Price 50cts a year. Send your name on postal and receive a sample copy of this bright new journal. Address, The Q. B. Journal, 175 Main St., Marlboro, Mass.

Entered at the Marlboro Post Office as second class matter.

## Advertising Rates.

15 cents per line (minion space,) each insertion, with discounts as follows:

10 lines and upwards, 3 times, 5 per cent; 6 times, 15 per cent; 9 times, 25 per cent; 12 times, 35 per cent.

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30 lines and upwards, 3 times, 20 per cent; 6 times, 30 per cent; 9 times, 40 per cent; 12 times, 50 per cent.

10 lines of this minion type to the inch.

## Remarks.

If you receive more than one of this paper, will you kindly hand one to your friend who is also interested in Apiculture. Sample copies will be supplied at any time for the asking.

To those of our friends who will help to extend the circulation of the Queen Breeders Journal by getting up clubs, we will give an extra copy for every club of five with \$2

When writing to us and the heading of your letter is different from your post-office address, give your post-office, and write all names plainly and it will insure a prompt reply.

The receipt for subscription money sent us will be given on the address-label of every paper. The first figure is the vol. and the last figure shows the number paid for, inclusive. If your date is not changed on the next number after sending money, notify us at once. Don't wait! Do it now.

We have not time to answer all letters of kindness, never-the-less, we appreciate them more than we can tell on paper.

## Clubbing Terms.

Two copies for 95 cents; three for \$1.35; five for \$2.00; ten or more, 35 cents each; all to be sent to one Post Office. Clubs to different Post Offices, 45 cents each.

## Standard Works.

Bee-Keepers' Guide, or Manual of the Apiary, revised, by Prof. A. J. Cook. By mail, \$1.50.

A B C of Bee-Culture, by A. I. Root. By mail, \$1.25.

Bees and Honey, by Thomas G. Newman. Price, bound in cloth, \$1.

A Year Among the Bees, by Dr. C. C. Miller. Price 75 cents.

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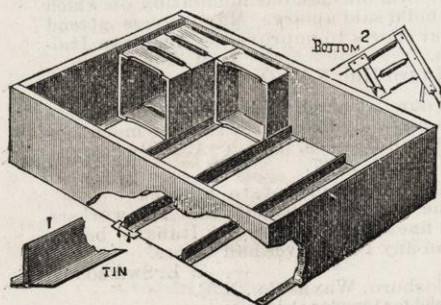
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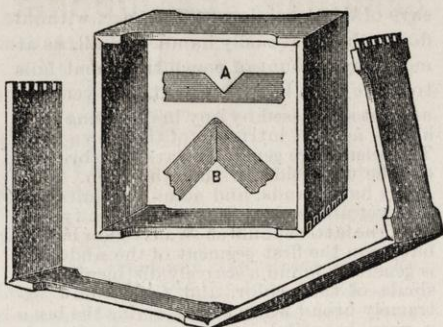
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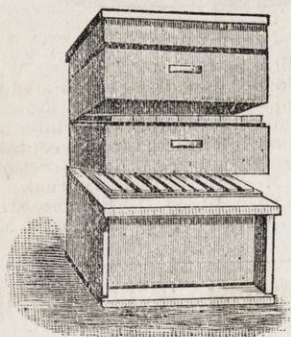
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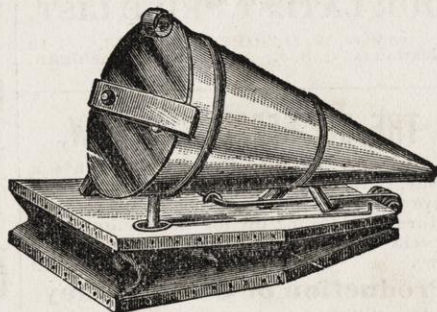
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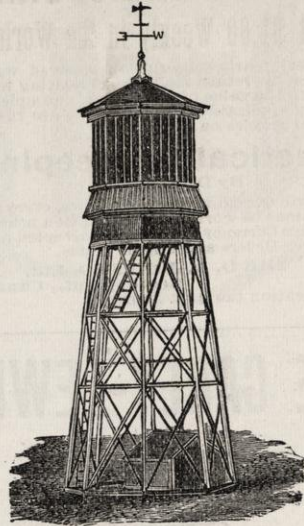
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