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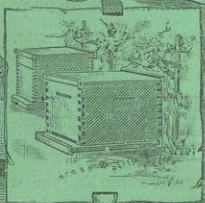
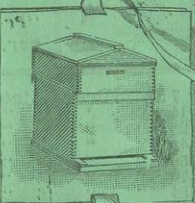
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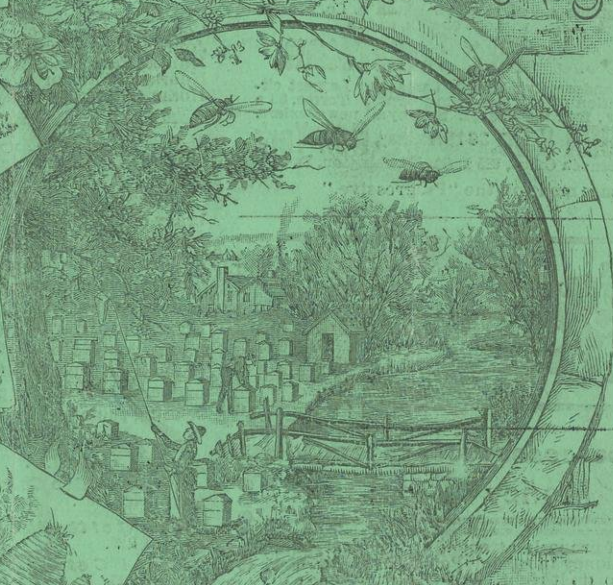
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JANUARY, 1902.



PROGRESSIVE BEE-KEEPER

A JOURNAL
DEVOTED TO BEES, HONEY AND
KINDRED INDUSTRIES.



PUBLISHED BY

LEAHY MANUFACTURING CO
HIGGINSVILLE, MISSOURI.

Entered at the postoffice at Higginsville, Mo., as second class matter



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We have just taken in a second-hand foundation mill in exchange for goods. This mill has 24-inch roll, the round bottom cell, of which the foundation comes off so easy, and from the looks of the mill, I do not think it has ever been used. The price of such a mill is \$30.00, and we will take \$15.00 for it on cars at Higginsville. This is very little over half price.

We also have one second-hand six-inch mill for making extra thin foundation, and one second-hand ten-inch mill for making medium or light brood. These are for sale cheap. Write for prices.

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Dear Friends:—It gives me great pleasure to forward you this unsolicited testimonial regarding the merits of Atchley queens. The (3) three dozen queens purchased of you have made an excellent record for themselves. Not an Atchley queen among the twenty colonies lost during the severe drouth in July. I have bought queens from many breeders, and although the present crop is exceedingly short, the tiers of supers show where the Atchley queens are and speak volumes for your method of queen-rearing. I find the progeny to be very gentle, strong-winged, uniformly-marked, long-lived, of large size, and last but not least the best honey-gatherers I ever had. I shall want 100 more next season.

Yours Fraternally,

J. C. WALLENMEYER.
Evansville, Ind., Sept. 27th 1900.

Friends, if you desire to know more about real good queens, and where to get them, send for our catalogue, which gives queen-rearing and the management of apiaries for profit; also a sample copy of "The Southland Queen," the only Southern bee-paper. \$1.00 a year. We give to new subscribers a nice untested queen as a premium. Paper and all for \$1.00. You can send your subscription now and get the queen when you want her. We keep 3-band Italians, Goldenes, Carniolans, Holylands, Cyprians in their purity, and in separate yards 5 to 20 miles apart.

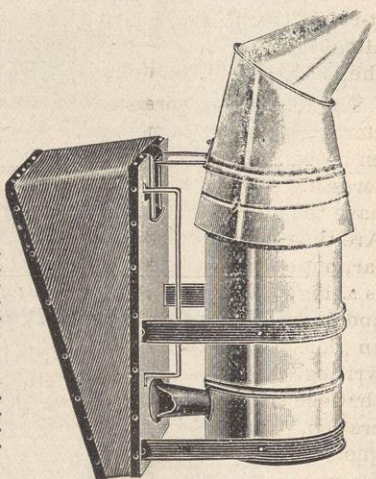
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The Progressive Bee-Keeper.

A Journal Devoted to Bees, Honey, and Kindred Industries.

50 Cents per Year.

Published Monthly by Leahy Manufacturing Company.

Vol. X. HIGGINSVILLE, MO., JAN., 1902 NO. 1.

Comments on the Breeding Discussion.

F. L. THOMPSON.

"The authors of our text-books, and the editors of our journals—appear to be grievously ignorant of the laws of heredity." The haphazard, guess-at-it-rule-o'-thumb ways have prevailed altogether too long."—A. C. Miller in the Review and Gleanings.

The foregoing expressions were the starting-point of the present discussion on breeding. Obviously the most interesting point to the lay mind is, what have the authorities to say in reply? Are those assertions true or false? So far, but one has replied; but as that one is a high authority on queen-rearing and honey-production, besides being an editor, at least to the extent of writing editorials, the utterances of that one should receive careful consideration. Accordingly I make the quotations which follow.

"Those who have accused the present race of queen-breeders of simplicity, and lack of insight into matters which go toward making a scientific breeder of other stock, have failed, in that they have not taken this mating question into consideration as they should. I know that there are queen-breeders of the present time who have put as much thought into it, and spent as much time thoroughly to equip themselves, for their business, as any breed-

er of any of our domestic animals. And because they could not control the mating of their queens, is no sign why they should be classified with the ignoramuses in breeding domestic animals. This last is not thrown at Mr. Simpson, for he has treated the queen-breeders of the present very fairly, as far as I have seen."—G. M. Doolittle, in the American Bee Journal, page 549.

It is evident that the assertion that there are queen-breeders as thoroughly equipped as any stock-breeders, if made by one who does not know what a thorough equipment is (as implied by Mr. Miller) may be sincere, but, on that account, not convincing. Accordingly a further examination into the validity of that claim cannot well be objected to.

In the first place, is it true that the application of ALL the laws of breeding depends on "taking the mating question into consideration?" In the September Review, Mr. F. B. Simpson, a practical breeder of trotting horses and Jersey cows, has the following remarks: "It is to me a most remarkable fact that practically all authorities on bees practice and recommend the almost absolute sacrifice of blood for individuality; when they must know that those traits are most fixed which have been sustained through the greatest number of generations, individual traits being comparatively much less

hereditary. The majority have for years bred their bees on a principle founded on a fallacy—they have continually bred from the least uniform, hoping to obtain uniformity!! How frequently we see the remark: 'Whenever I see one queen's colony outstripping everything in my yard, I select her to breed from.' He goes on to illustrate in a striking manner the results of breeding from an individual freak, when compared with the most consistent representative of the best blood. Now, this principle of the ability to transmit qualities being preferable to any amount of individual excellence is nothing new. I do not quote it because Mr. Simpson supports it, but because it is a well-recognized principle among stock-breeders. This principle is not directly concerned with the mating question. Have our bee-authorities recognized it, or not? The following illustrates Mr. Doolittle's teachings on selection independently of mating: "We often hear bee-keepers say, 'if all the colonies had been as good as was No. 12 (number 45, or some other number as the case may be,) I should have had several hundred, if not thousand, more pounds of honey than I secured this year.' Well, the question is, why not have all the colonies in the apiary as good as No. 12? We may not accomplish all we would like to in one year, but by superseding all the poorer queens in the apiary by those raised from No. 12, we certainly shall be advancing up the scale toward number twelve's yield. This is what I have been working for during the past thirty years, and it gives me pleasure to say that my colonies average very much more nearly alike in their yields, and the average yield per colony is much higher in proportion to the yield of nectar from nectar-bearing flora than it was when I commenced."—American Bee-Keeper for July.

We thus see that one eminent queen-rearer, at least, has paid no attention to one of the important and available

laws of breeding. As to the improvement in his apiary by depending only on the principle "Like produces like," that is to be expected, but the question is whether the improvement would not have been much greater by choosing the uniformly potent queens as breeders.

Let us now "take this mating question into consideration." Mr. Doolittle says, in the American Bee-Journal, "All the illustrations which have been given in the bee-papers during the past 30 years, no matter by whom given, as comparing the breeding of horses, cattle, sheep, poultry, or swine, with that of breeding queen-bees, have been equally valuable, for there is no common ground (on which to stand) between them... the fact is, the breeder of queen-bees is, all at open sea' in this matter of the SELECTION OF DRONES, and all talk along the line of what drone any queen mates has no value attached to it whatever.... The very best I have been able to do on the drone-side has been to keep a lot of drones from my best breeder, not nearly akin to the queen-mother, till fall, after other drones were killed off, then 'hand pick' them, culling out all the inferior ones, when I had some reasonable assurance that queens reared at this time would mate with some of these drones, providing that some other colony within the circuit of the flight of drone and queen did not have a failing queen, or was queenless, in which case there would probably be hundreds of drones from such a colony to where there were tens of my hand-picked specimens." Mr. Doolittle also refers to "the present conditions of mating, with no chance at all of having our say in the matter." It is singular that on page 681 of the American Bee Journal Mr. Doolittle gives no less than four plans (of which the above is one), and of one he remarks "The queens will, as a rule, be all mated with the desired drones," and of another "The results will prove quite satisfactory." I find

myself unable to reconcile these statements with the above. Is it not a great point—is it not the MAIN point—to be sure of the mother of the drone with which the queen mates? Is not this accomplishing the the MOST IMPORTANT PART of the “selection of the drone.” and is there not, therefore, MUCH common ground between the breeding of bees and the breeding of other animals? Suppose you were breeding milk cows for the greatest proportion of butter fat, and were about to select a sire. If all the available sires were vigorous and well-proportioned (like Mr. Doolittle's hand-picked drones) what would be your basis of choice? Would it not be the best pedigree, or the one best suited to the pedigree and characteristics of the dam? Is there any reason why the drone should not be hand-picked in every one of the four plans? The only differences that I can discern between the breeding of bees, and of Jersey cattle or Leghorn chickens, is that an expert may more readily guess at the milk-producing and egg-laying qualities of the progeny of the males of the latter than the honey-gathering qualities of progeny of the former, by considering external appearance, and that cows and hens can also be judged by their own performances as well as by their ancestry and progeny, whereas queens do not themselves gather honey. But both these are minor considerations. Within reasonable limits, the ancestry is the main thing, because it furnishes the guarantee of the transmission of qualities. It seems, however, that Mr. Doolittle ranks individual traits very much higher than the ability to transmit them, if we may judge from the following quotations: “I have had a standing offer, out for years, of \$500 to the man or woman who would give me a PRACTICAL plan whereby I could mate a queen-bee to any INDIVIDUAL drone, with the SAME CERTAINTY that a horse-breeder could mate his stock.

And I know of several other queen breeders who would give from that to twice that amount.....I spent much of the time during the later seventies and early eighties in trying plans for the control of fertilization, thinking them out nights and trying them days, besides nearly all the plans advised by others, and after having to write ‘A FAILURE’ after each experiment, I settled down to try to do the best I could from the queen side, which thing -I have been doing ever since.” Why this high estimate of individuals, rather than permanency of type? Is it not clear that the theory and practice of a representative queen-rearer is opposed to that of stock-breeders, and is not therefore the language of Mr. Miller justified?

It is true that if a queen could be mated to an individual drone, it would be a great gain; but why? Mainly because the close attention, labor, and expense now required to confine the mating of a queen to some one of the drones of a particular queen would all be avoided; not because one could be certain that the external appearances of a particular drone indicated that his progeny would gather more honey than that of his brothers.

“In our attempts to improve our races of bees, we have to meet several difficulties that do not occur in other lines,” says Mr. Adrian Getaz, in the American Bee-Journal, page 647; and after referring to two points which I have referred to above as minor considerations in comparison with ancestry, he gives the third as follows: “We are to work in the same line as nature. In improving cattle, for instance, in getting up a good milking stock, we are developing a quality that in the wild state was completely undeveloped, hence we can obtain wonderful results. In the wild state, the animals (something like the Texas steers) have developed chiefly hardiness, health and strength. If we were to take the

Texas stock and try to increase the same qualities of hardiness, strength, etc., we would make but little headway, because Nature has already developed them almost, and perhaps up, to the limit attainable.

In bees, what we want chiefly is hardiness and honey-gathering qualities; that is, the very qualities that Nature has been developing for thousands of years, and we may expect that the limit had been nearly reached, if not altogether."

Just what is meant by milking qualities being "completely undeveloped" in a wild state is not clear. I should say that to give enough milk to support a calf is a respectable development. But however this may be, it is certain that honey-gathering qualities from an exact parallel to milk-producing qualities; for just as Nature does not need to make cows that give more milk than a calf needs, so Nature does not need to produce bees that gather more honey than suffices for winter stores; and just as we have produced strains of cows each one of which gives several times as much milk as the calf required, so we may confidently expect to produce strains of bees, each colony of which produces several times as much as their winter stores; in fact, as we have some such colonies now, it is hard to see what else this idea is than a fancy. And as to Nature developing honey-gathering qualities for thousands of years, that is just what Nature has been doing in milk producing qualities, too, for the life of the calf, during a certain period, depends on the amount of milk it gets, and if there were no calves, there would be no cows. (Millions of years would be more correct than thousands of years, however.)

And as to hardness, is it really true that Texas stock, or any other species of animal not in the arctic regions, has been developed up to the limit attainable? Would not Texas cattle, if left for several hundred years in British Columbia, be harder than in Texas? Would not white men have been better

capable of resisting malarial fevers, if their ancestors had developed on the Gold Coast? Why assume that the tests of Nature are invariably complete? Is not just the opposite the case?

I cannot, therefore, see any serious reasons for believing that the breeding of bees differs essentially from the breeding of other stock.

Denver, Col

A SUGGESTION.

W. A. GILSTRAP.

I think there can be no doubt that the honey market would be in much healthier condition if the honey crop could be reported by the Department of Agriculture on the same footing as hops, hogs, corn, and etc. The Statistician informs me that an increase of appropriation for statistical work is necessary before this can be done. Other lines of agriculture need help as well as bee keepers. If we wait for them to get the increase of appropriation I fancy we will wait a long time. We may get them to act in some cases. But we can act at once and if all do so there can be no doubt about the result.

Each bee keeper is asked to write as soon as possible to the representative of his district, and to both Senators from his state, requesting them to support this increase for statistical work. One letter on the subject caused Representative J. C. Noodham, of this district, to indorse the scheme. He also volunteered to present our claims before the agriculture committee. Write at once. Your law makers will be glad to hear from you.

Grayson, Cal.

NOW

is the time to subscribe for the
PROGRESSIVE

ONLY 50C A YEAR.

EXTRACTS FROM QUEEN REARING BOOK

BY

"THE SWARTHMORE LABOR-SAVING PLAN."

"PROFESSIONAL" FERTILIZING ATTACHMENTS.

ADAPTED TO ALL CLIMATES.

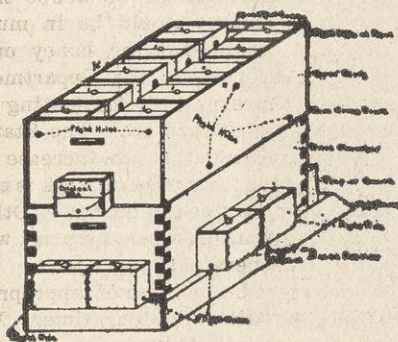
In most climates, inside attachments are more satisfactory than the outside Boxes, and they are recommended as convenient and reliable. Being inside the hive temperature is better maintained at all times—less attention is required to keep them in good working order. Hatching cells which are simpler to handle than virgin queens, may be safely inserted rain or shine, cold or blow.

and other shallow hives.

Either the Jumbo or half-depth sizes may be used in eight-frame hives by omitting two of the Boxes on one side and turning the three remained Boxes sideways as in the super attachments. DIRECTIONS FOR USING THE "PROFESSIONAL" QUEEN FERTILIZING BOXES.

The lower story is filled with brood combs such as one has on hand; if there is brood in the combs make sure it is far enough advanced to prevent the construction of queen cells inside the hive—better have no brood at all in them.

Through the sides and back of the lower story bore three pairs of $\frac{1}{4}$ -inch holes to relieve "Super" or "Original" Fertilizing Boxes, as shown in the drawing. Contract the grand entrance and adjust an Alley trap or queen guard firmly in place there. Now lay on the zinc honey board and tier above it, the upper story containing the "Inside" Boxes, as shown in the drawing. Two brood combs are supposed to hang in the space between the Boxes.



"PROFESSIONAL" ATTACHMENTS.

The "Professional" queen fertilizing Boxes are made in three sizes for attaching to the inside walls of ordinary hive bodies, half-depth supers and honey cases. The Jumbo size has two frames to each Box, measuring $4\frac{1}{2} \times 8\frac{1}{2}$. Ten of these Boxes fit nicely inside a ten frame body, five on each side, leaving space for two frames of standard dimensions between them, in which space brood, honey, pollen, etc., are supplied in the usual way for the use of the colony.

The half-depth size is for use in half-depth supers. They are equipped exactly like the Jumbo, and are attached in the same manner, with space between them for two half-depth frames of comb. These are also adapted to the Danz.

The bees enter the Boxes through the zinc covered slots at either side.

Three-quarter flight holes from the upper Boxes are provided, three on each side, two at front and two at back, as plainly shown in the drawing.

Supply each Box with one comb of all stages and one empty comb, then run a lot of queenless bees into the hive and cover.

It is a convenience to have two sheets over the top of the hive, one narrow, tucked down over the two frames; the other large enough to cover frames, Boxes and all.

A day or two previous to the hatching of the queen cells you have supposed to have started 10 to 12 days before, roll back the sheet, one side at a time,

and slip each into each box through the $\frac{1}{4}$ -inch holes provided in each divided lid, as shown in the drawing at S.S.S.S., etc. If the Boxes below are "Original" place one cell in each Box. But if "Super" are used here, slip the cells into the holes, through the divided lids in the same manner as those above.

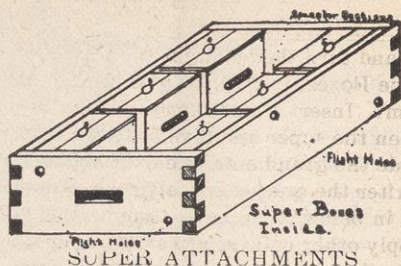
A little roof to cover each pair of outside Boxes is necessary in damp or cool weather.

The flight holes of the lower, outside Boxes should come from the ends, right and left as shown in the drawing.

In due time the cells will hatch inside the Boxes, in the midst of the bees and when about five days old the young queens will begin to fly out to meet the drones—all may not return, but the greater part of them will—and after they have supplied the little combs with brood remove the young queens and insert other hatching cells; then, if any of the Boxes are found broodless, borrow one comb of brood from those having plenty and thus spread the little combs of brood throughout all the Boxes.

Laying queens may be safely left in the Boxes an entire season if the colony is kept strong by the occasional addition of sealed brood taken from other hives, first ripened above zinc.

To properly separate the clusters of young bees that will hang out from the upper flight holes in warm weather tack a $4\frac{1}{2} \times 4\frac{1}{2}$ plain section about each flight-hole above. The two uppermost flight holes on either side of the upper story (marked x in the drawing) are better if covered with a little two-inch square box having still another flight-hole, pointing upward, on a level with the hive cover, to make them more remote from the other side entrance. Experiment a little, then adopt the entrance arrangement that suits your locality best.



SUPER ATTACHMENTS

The super Boxes have two frames, each measuring $4\frac{1}{2} \times 4\frac{1}{2}$. These Boxes are for use end to end in the shallow honey cases, three on each side, with space for several rows of honey sections between. So one can mate queens and produce box honey all at the same time. These Boxes are also applicable for outside attachment like the "Original Swarthmore Fertilizing Boxes" as shown in "Gleanings in Bee Culture," 15th September, 1901. They cannot, however, be placed one directly above the other nor as close together as the "Original" on account of the space needed above them for withdrawing the frames to make examinations.

HONEY PRODUCERS' ATTACHMENTS.

The above drawing shows how the "Super Boxes" are used three on each side of a shallow honey case. The space between the Fertilizing Boxes is filled with honey sections, and the super is then tiered above a colony that has swarmed, or one that has been deprived of its queen. Place in the Boxes six of the finest swarm cells and destroy all the others. A sure way to discourage further construction of cells is to remove the combs one at a time; cut the cells you wish to save, then dislodge every bee and destroy every remaining cell. Any combs containing young brood can then be taken away and given to the swarm empty or capped brood combs to take their place, which will discourage further swarming.

ing and turn the attention of the bees to the Boxes, just what you desire of them. Insert a zinc honey board between the super and hive body, and exclude the grand entrance.

After the queens are all mated run one in below or remove them all and supply other cells as you select.

By the above arrangement other Fertilizing Boxes may be attached to the hive body as shown in the first cut, if one so desires, and from six to eight more cells can be saved, but no queen should be allowed at large on the hive combs until all the queens in the lower Boxes have been removed or attached above the zinc honey board.

TO BROOD THE LITTLE COMBS.

To secure brood in the Fertilizing Box frames fit them into the bottom of ordinary frames, four across upright or three across laid down. Nail a bar across the tops of the little frames and fill this space above with strips of comb or foundation. When little frames are removed supply others to be refilled with brood, and so on through the entire season.

When once the "Professional" Boxes have been supplied each with one frame of brood the young queens mated from them may be depended on to keep the little combs well brooded thereafter, and it will not be found necessary to draw brood from full colonies any more than to simply give the Fertilizing Boxes a start at first.

TO WINTER EXTRA QUEENS

In a 12-frame separable hive body place 20 half-depth Boxes, ten on each side; fill the space between them with full combs of sealed stores. Supply each Box with a young laying queen confined in a little cage provided with a candy plug, then crowd the hive full of young bees that have been queenless three days and without brood or combs 12 hours. Examine the Boxes in five days to make sure that all the queens

are safely introduced. As soon as the bees are settled for the winter move them carefully into a warm, dry, quiet, dark cellar. Set them up onto an empty four-inch super. Leave all entrances wide open, but all flight-holes should be covered with zinc to prevent the queens from leaving the Boxes, should the bees cluster out.

QUEENS SUPPLIED THE YEAR AROUND.

To supply queen orders and winter month in the year remove one Box at a time and take it to warm room, cage the queen and her attendants; then return the Box to the hive from which it was taken; all with as little disturbance as possible.


NEW YORK HONEY TRADE.

From Southland Queen.

THE prospects of getting that honey trade in New York seems very favorable. I want to try to arrange to have a representative come down occasionally and at the different stations accept it and pay off. The chances are we can get 7 cents in this way. Extracted is the honey for Texas to get big crops.

If you can do anything through the "Queen" by notifying the people to send different samples and help us you will benefit yourself as much as we.

UDO TOEPPRRWEIN.



1 2 3 4 5 6

Count the Chicks

as they come out. Then count the eggs, and you will see why so many people are using

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Records.

S. E. MILLER.

Considerable has been written in the past on the subject of keeping records of each colony of bees. Dr. Miller and the Roots have had several arguments through Gleanings in which the Doctor was in favor of a book record and the Roots preferred the little slates advertised in their catalogue for that purpose. For a number of years I also favored the little slates, but years of experience have taught me that they do not completely answer the purpose for which; they are intended. By using abbreviations we can keep a record on these extending through a few months or even one season, but of what use is this as a record. Of course they are convenient in keeping a temporary record, but a record of a colony in order to be of value should extend through a number of years, for how are we to know what colonies, or the strain of bees from which queen, have averaged the best through a number of years. We can not trust this to memory. If we could records would be useless.

I now keep a book record and said records run from year to year so that I can trace the ancestry of any queen in the apiary back, to the time when this record commenced. Of course there are a few exceptions to this as in spite of the greatest vigilance on the part of the apiarist there will occasionally be queens superseded without his knowledge and this will make the record of that particular colony incorrect, but on the whole the book record will be reliable, for our most important queens, (especially breeders) can be marked by clipping the wing or wings in a certain peculiar manner and a record of the manner in which clipped entered in the book, so that if we find a queen with perfect wings occupying such hive we may know that the original queen

has been superseded and a record should then be entered to that effect.

We should not only have a record showing from what queen our queens are reared, but under what conditions and by what method reared.

Of all the queens sent out by me this past season I can tell by reference to my records, from what queen and by what methods they were reared. Of course there may be a very few exceptions where I have possibly forgotten to make an entry but such cases are very few as I am very careful in this particular. In order to make it plain I will here give a copy taken from my record book. I will state also that the letter, and figure refer to the stand number which remains always the same and the particular hive contained two nucleus, designated as east and west.

H 2.

1901.

June 28th 2 nucleus formed by Doo-little plans, 3 p. m. Gave queens 1 day old from Ruby. Reared by Alley method in B 1. 29th 9 a. m. hived and designated east and west. Evening, gave each 1 comb brood and 1 of honey 7-10 Both laying fine fine looking queens 7-12 Mailed both to John O. Carson, Omaha, Neb., by order of Leahy Mfg. Co., and gave protected cells reared by Alley method, from nucleus in E. 1. 7-15 Both out. 7-27 East side laying O. K. West side apparently fertile but saw no eggs. 7-30 West side mailed to James H. Lewis, Elma, Wash. 7-5 West side No cells; some cups started. 8-24 West side have reared no queen. East side had frames crammed with honey and built to division board. Removed Division board and unveiled. NOTE. Watch this queen for future developments. 8-31 gave two more combs from F 3 partly filled with honey. 9-1 Gave 1 comb almost empty but containing some brood, from F 2 9-7 gave three more combs, now ten in all. 9-16 gave 5 frames above. 10-1 Extracted seven

pounds honey. 11-29 packed for Winter O. K. I have written out in full above much that is abbreviated in the record as the reader would not understand it all unless he was familiar with my code. In brief this is a double nucleus form by Doolittle method June 28th from which I sold three queens and afterwards merged into a single colony that built up into a strong colony. Gave me seven pounds extracted honey and goes into the winter in good condition.

This was done as you will notice by a queen that commenced laying July the 27th and with very little aid from other colonies.

The record shows that she is a daughter of benus, viz., one of Root's best

imported queens and was reared by the Alley method.

Should this queen prove to be one worthy of breeding from and I keep up my record as I intend to I can trace back to her imported mother after many generations or just as long as my record is kept complete. Many beekeepers may say that all of this is too much bother and takes too much time and while I admit that there is much truth in such argument, I contend that it is only by such careful records and much pain-taking care that we can hope to permanently improve the desirable qualities in our bees.

Bluffton, Mo.

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on the place will be glad and you'll be glad, too, if you buy a

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Open hopper; only three working parts. no trouble to keep clean; no trouble to turn; no packing bones in cylinder.



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Editorial.

C. M. Doolittle & R. B. Leahy, editors.

The New Year is here. White and beautiful its pages. To each and all who look upon the unsullied leaves, may it be a glad, bright year, halved with joy and fraught with peace,

CENTRAL New York enjoyed a beautiful fall up to November, 11, with roads just as hard and nice as in summer, which is something very rare in this section. But although such was the case it was not warm enough for bees to fly after October 26, and the mild weather, just above the freezing point, caused me to hope that bees might have a flight in November before they were put in the cellar.

ARE COMMISSION MERCHANTS A DISONORABLE LOT, AS A CLASS.

—During the past few years there has been considerable in the papers regarding commission men, which gave an unfavourable impression toward them, and especially toward those commission men who receive consignments of honey the idea seeming to prevail that the bee-keeper was more apt to be swindled out of his product where he shipped his honey on commission than was he where he sold the same outright, to some honey buyer in a distant city. And I fear this unfavourable impression will be strengthened by the words of Editor Root as found on page 942 of Gleanings for 1901, where he says: "Mr. Burnett, of Chicago, is one of the few strictly honorable commission men of the country." I have shipped honey on commission for the past 25 years, and to fully as many different commission merchants and from this quarter of a

century's experience I should have said that "Mr. Burnett is one of the **MANY** strictly honorable commission men of the country," for that quarter of a century has proven to me that commission men, as a class, compare favorably with any other class of men in the United States. To be sure I have found scoundrels amongst them, but no more so, that I know of, than I have amongst all other classes of people. Even the class of people to which we belong, bee-keepers, has now and then a scoundrel, as I have reason to know, but I would hardly wish to say that Mr. Root was "one of the few strictly honorable bee men in the country," because I had found scoundrels in the ranks of bee-keepers, for in doing so I should convey the impression that the majority of our apirists were not honorable, or, at least, were not as honorable as Mr. Root, and by thus conveying I would injure a multitude of honorable men and women.

RAKING BEES FROM OFF THE COMBS: A correspondent writes me that he has sometimes read in an article of mine, where I advised shaking the bees off the combs when I wished to free them from bees, and wishes me to tell how it is done, as he can dislodge but very few bees. With me it is very easy to rid the combs of bees by shaking, especially if each frame is filled with comb as that the same is attached to the bottom bar the whole length. Where combs are not so attached, there will always be a few bees between the bottom bar and the comb which will stay there no matter how the frame is shook, and these will have to be brushed off. Desiring to take comb away from the bees, I place the projecting ends to the frame on the ends to the middle fingers of each hand and then, with a quick upward stroke, throw the ends of the frame against the ball, or thick part of the hand at the base of the thumb. As the

frame strikes the hand let the hands give a sudden downward motion, which makes the shock still greater. As the frame strikes the fingers it is again thrown back against the hand and so on until all, or nearly all the bees are off. The principle is that the bee is on guard all the while to keep from falling off downward thus holding on tenaciously so as not to be shaken off by any downward motion. By a sudden stopping of the upward and quick downward motion, the bees are thrown off their guard and dislodged in an upward direction. In this way I have no trouble of shaking every black or hybrid bee off, and if the Italians are disturbed enough to cause them to fill themselves with honey, they can be shaken off the combs about as easily as the black bees. But even if we cannot afford to wait until they are filled with honey, nineteen-twentieths of them can be shaken off, when a bee brush will easily take off the rest. To any one not used to this way of shaking, it may appear to be a little awkward at first; it will soon become easy, and after once becoming used to this method none will be willing to use any other.

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G. H. CRAIN, Principal.

"Riverside Farm, or Led By a Bee"

Bessie Bond, Author.

CHAPTER VI.

A DAY OF PLEASURE

Thursday morning dawned, fair and bright. At 9 a. m. farmer Bird drove up and deposited his precious burdens at the front door; for true to his word, he brought the whole family. Aunt Millie, Bess and myself stood on the stoop to receive them. The regular

preliminaries over, Mr. Bird set out a wooden box, saying it "smelt like something good to eat." "Don't feel insulted, Mr. Rochester, I could not think of bringing all my flock without contributing a little toward the dinner." As I peeped under the cover, she smiled and continued: "It's only some of my home-brewed edibles which I know you will like better than the

factory made stuff you buy." "Look at this, Aunt Millie," said I lifting out a tin pail full of the most beautiful white capped honey. "This is just what you have been wishing for Auntie and I know you hail it with joy; but the preserves, jelly, fruit and sweet pickles are mine, for which I thank you very much, Mrs. Bird." "That is not fair," put in Bess. "You do not say any of it is for me, so I'll just tell Bettie to hide it where no one can find it but me."

"Oh, you may have the sour pickles, and perhaps a pomegranate, but you shan't have the rest even if you weep."

"Children!" said Aunt Millie, quite shocked out of her wits at such manners displayed before strangers. What will Mrs. Bird think of such manners?"

"Why, she will think just as she should think of it; that you never gave us half the peach-limb tree we needed while we were in pinafores and kneepants," but before I had finished the sentence, Aunt Millie and Mrs. Bird were gone. Bess and Miss Belle and the little ones, including Bob's were leisurely following after them and little Clare was all that stayed to hear me out.

"If she does what she said she would Mr. Cal, I'll give you some more," said she coaxingly.

"All right, I will let you if she makes her word good," said I, then led her into the drawing room where the rest had taken seats and already engaged in lively converse. I led her round to every one in the room, except her own folks, introducing her as "My little friend, Lady Clare." She acted her part alright until we came to Mart and he wanted to kiss her; then she drew back behind me and as I threatened to "pitch him out at the window" and teach him how to treat a "lady" when he saw one, then helped her upon the window seat beside me. At length

she asked in a whisper: "I say Carl M., where are those pretty things, you are going to show me?"

"They are at the barn," I told her "We will slip out through the window and look them up, if you will sing and play "Dixie" for me when we get back."

"I will," said she, so out we went but stopped at the gate emitting a shrill whistle through my teeth. A moment later, we were surrounded by at least thirty snow-white carrier pigeons. I reached out my arms and they covered them.

Oh, the doves! the pretty white doves!" she exclaimed, "I do want one so bad, Mr. Cal."

"Yes, you shall have all you can catch," was my reply, "but they are carrier pigeons, and will bring a note or letter to me any time you would like to send me one."

"Oh, what fun! I'll just write you a letter every day, but then if it does not come back to me, I will not send but one."

"Oh, I will take it to you, if it does not go back when I tell it to go."

I let her play with them undisturbed for several minutes, then reminded her of her promise to play "Dixie" for me, so we went back. She played it too and received a perfect storm of cheers. Then the day's exercises begun.

"Tennis first" said I, "come along Clare, we will lead the game."

We were told 'not to be too sure, but we came out winner just the same, which surprised every one except Bob. Miss Belle and myself, for we had played with her before. So we went to dinner wearing the lion's skin and acting the monkey for the amusement of the rest.

By two p. m. all the youngsters had arrived and we repaired to the river, with all necessary articles for having a good time. Aunt Millie, Mrs. Bird and Mr. Bird named our fish hooks before we

cast them in, telling us whatever we caught would be a resemblance in character of our future wife or husband. I had to go with the servants to show them where to prepare the tea so I was last in casting my hook, but first to catch a fish.

"What is it Cal?" sang out Mr. Bird, as he saw me drawing in my line.

"It's a fish of course," said I with much emphasis.

"I believe its an Eel," he said coming closer where he could see.

"Call it an Eel if you like Mr. Bird, but it's the finest fish in the river.

"Who does she favor, Aunt Millie?" I exclaimed, holding an eight-pound, blue cat up to view.

It's Miss Belle, Cal, and the fish is almost as fine as she herself."

I suppose I blushed, for Mr. Bird's merry laugh rang out loud and long. Then Martin Dewitt appeared upon the scene, with a little craw-fish dangling on his hook.

"What have you caught sonny?" said I pleasantly.

"Name it and take it," said he, thrusting it at me.

"Queer name for a fish, who is it, Mrs. Bird?" said I.

"Yes, who is it?" added Mart.

"She is a perfect little darling who ever she is. See how lovingly she clings to the hook?—but there now; she's back in the water; who would have thought a moment ago she would have left me so soon: the little dear, Well I can't cry for laughing."

"That was Nellie Tucker," said Mrs. Bird, 'so take warning Mr. Dewitt and do not flirt with the girls, especially those in Texas; for they are independent creatures, and just when you think you are sure of one, she backs off just as that little half-witted craw-fish did." By this time the rest of the party came up, bearing their rods and lines, some with fishes dangling on the

hooks, while some only contained the bate. "What have you got there, Will?" said Aunt Millie. "A fine perch, four or five inches long, with red eyes and hair. Roman nose and freckled face," said he solemnly. "Do you think that description fits you Miss Lulu?" said Mrs. Bird, laughing. "Oh, Mrs. Bird! I felt sure it was myself, before he was half through the description," said she seemingly much distressed. She was a perfect brunette, with large round black eyes that fairly danced with merriment, while her voice was solemn as that of a priest. Bess caught "a perfect little dear," of Buffalo fish, weighing three pounds which proved to be Robert Bird. Miss Alice caught a crab which she affirmed "was bald eeaded, blind in one eye, and seemen very proud of a full set of new false teeth and long gray whiskers." "That is you Dick—or will be you, by the time you are three score, and ten," said Aunt Millie, trying to repress a smile. While Dick himself had angled an eal and felt sure it must be Miss Alice, for it give him "the slip," and came near "slipping" back in the water. Oliver Oaks, Charlie Tucker, Mattie Luling, Orrin Gates, Albert Dundee and Miss Hattie Wilkerson would not own up to catching anything. Miss Lulu Tucker caught a sucker, which had "green eyes white mustache and hooked nose," proving to be Albert Dundee and as he was a poor hand to take a joke, it was a means for much laughing and jesting.

Miss Kate had a large frog on her hook, which she claims to have held a conversation with before it took the bait. It came near the hook and said to the little frog which served as bait, "Who-are you,—who-are you? and Miss Kate, thinking it was asking her the question, replied, "Kate Sterling, at your service sir; who are you? "Oliver-Oaks, Oliver-Oaks," it replied.

"What is your profession Mr. Oaks?" she asked, "Loving you! loving you!" was the reply. A poor business," said she, "have you no other profession?" to which he replied, "Lawyer! Law-yer!"

Then she told him that he was all right, just catch hold of the little frog, and she would draw him out. "He straightway obeyed the command," said she, "so there he is, in all his glory." Oliver was somewhat bashful and we showed him no mercy.

Miss Belle caught me in the guise of a flounder, which also caused much mirth. Bob caught a lobster, but it dropped off the hook, before it was fairly out of the water. It was Miss Hattie Wilkerson, and Bob vowed "it would be quite like her to do such a trick."

Well Pat, what have you? did you not catch anything? "Faith, Miss Millie, but oi did cotcht it all. Et was a big fat tirkle. The swate chreather swinght onto me hook, wid tears in its pretthy blue eyes, till oi thot it niver wud tarn loos till it thundered. Now Mistress Burns, if ye jis says its me own Biddie, Oburk, away back in Ireland, oive made up my moind to sthart afther her tomorrow."

"Yes, indeed it was Biddie. Pat, I should not think of putting anyone before Biddie, but I hope you will not start after her yet awhile. She may be somebody else's Biddie, by now, you have deserted her so long."

"You don't know me Biddie, Misthres Burns; divil a-bit; you wud niver say sech things if ye did."

"She is "true-blue" is she Pat?" said I.

"You don't know "thru," me boy, till yez see me Biddie. She is ez thru to me ez thet o'im an irishman, born in ould Erin."

"That will do Pat, you may start back after her tomorrow if you like. I can go back to Old Kentucky with

ready to go."

To tell the truth of the matter we all thought Pats Irish Biddie a "lake." He was always talking about his Biddie, since my first recollection; but if he had ever received a word from her or written her one, it was Pats secret, and he guarded it well. Something else that seemed strange was why he did not go get her, if he loved her so well. I could not think my good old kind-hearted Pat capable of treating anyone that he loved in such manner; much less his sweetheart. But today his solemn words and manner seemed "to throw a wet-blanket" over our party, till I told them that "Pat had no Biddie" and that I thought it quite time for tea."

So long before we arrived at "Lady May," the crowd, even to Pat, had regained their former spirits and the woods re-echoed with laughter and song. We found tea ready and waiting and we fell to, with a will, born of hunger. I had taken little Clare over and left her with the servants, and some of her little brothers and sisters. A small round table stood in the centre of this spacious work of nature which held all Aunt Bettie's best work of artful cooking, decorated with choice wild flowers, placed there by Clare's deft little hands. The ladies found seats in the grape-vine swings, while the we boys thoughl a mosi covered seat on the ground floor, quite good enough for us while the good things were passed to us. We spent two hours in this cool restful place; then went home and prepared for a "grand masque" afterwards; which lasted only till ten o'clock, as we were all tired, happy and well content with the days enjoyment. Promising each other to meet again soon we each bid the other "Goodnight and pleasant dreams," and retired to rest.

To Be Continued.

The Family Friend

An old and true friend that will help you in times of distress. When racked with pain you would give anything for relief. In the hour when the little child, too young to make its wants known, lies suffering, its little face drawn with agony; in the hour when the good wife, worn and tired, needs an arm to lean on; at all such times when the calling of a doctor means a dangerous delay, besides great suffering and a heavy bill, there is nothing else so good as a bottle of

WATKINS'

Vegetable Anodyne Liniment.

We receive numberless letters like these:

SAVED THE CHILDREN.

CLARK CITY, Minn., June 14, 1901.

We had five children sick with diphtheria last winter and carried them all through in one week without any doctor. Watkins' Vegetable Anodyne Liniment should be used at once as soon as any symptoms appear. We mixed two tea-spoonfuls of Watkins' Liniment with two of vinegar and one of salt. Gave some of the mixture once an hour, also rubbed the Liniment on outside of neck.

OTTO PELER.

HORSES WOULD HAVE DIED.

SHIPSHAWANA, Ind., June 18, 1901.

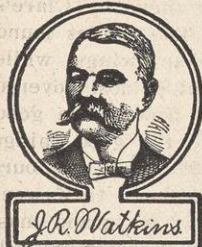
I have used Watkins' Vegetable Anodyne Liniment for nine years and find it the best remedy for colic in horses I ever knew. I saved two horses with it that would have died. Can't speak highly enough of it.

HENRY C. TON.

The best thing made for Cholera Morbus, diarrhea, flux, rheumatism, cuts, cramps, strains, burns, colic, hiccups, sore throat, diphtheria, frost-bitten limbs, etc. For horses and cattle it cures sprains, cuts, scratches, bruises, swellings, colic, etc. Of course when you read this advertisement you may not feel the need, but the need of it may arise at any moment of the day or night, and then its worth can not be counted in dollars and cents. Order it the next time our agent calls, or if we have no agent in your county, send us your name and address at once, and we will see that you are supplied.

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We send out a beautiful 100 page illustrated Home Doctor and Cook Book absolutely free, and want to place your name on our mailing list. It is the cleverest and most complete thing of its kind ever issued. Write for one to-day.



Wanted a Man. We want one good, open-eyed young man in each neighborhood who has a little ambition, and an inclination to get on in the world, to write to us. We are in a position to start him in a good paying business of his own. We have lots of young fellows, "boys" you might call them, who are making a nice thing selling Watkins' Remedies.

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Beardless Barley
is prodigiously prolific, yielding in 1901 for Mr. Wells, Orleans Co., New York, 109 bushels per acre. Does well everywhere. **That pays.**

20th Century Oats.
The oat marvel, producing from 200 to 300 bus. per acre. **Salzer's Oats** are warranted to produce great yields. The U. S. Ag. Dept. calls them the very best! **That pays.**

Three Eared Corn.
200 to 250 bus. per acre, is extremely profitable at present prices of corn. **Salzer's seeds** produce everywhere.

Marvel Wheat
yielded in 1901 States last year over 40 bus. per acre. We also have the celebrated **Marconia** wheat, which yielded on our farm 63 bus. per acre. **That pays.**

Speltz.
Greatest cereal food on earth—80 bus. grain and 4 tons magnificent hay per acre. **That pays.**

Victoria Rape
makes it possible to grow hogs, sheep and cattle at a cost of not less than 10c. Marvelously prolific, does well everywhere. **That pays.**

Bromus Inermis.
Most wonderful grass of the century. Produces 6 tons of hay and lots and lots of pasture besides per acre. Grows wherever soil is found. **Salzer's seed** is warranted. **That pays.**

\$10.00 for 10c.
We wish you to try our great farm seeds, hence offer to send 10 farm seed samples, containing Thousand Headed Kale, Teosinte, Rape, Alfalfa, Speltz, etc. (fully worth \$10.00 to get a start) together with our great catalog, for 10c postage.

John A. Salzer Seed Co. LA CROSSE WIS.

A GOOD REPORT.

From Southland Queen.

The following is my report for the season of 1901. I started with thirteen colonies, Spring count, increased to twenty-three, and sold honey to the amount of \$65, all extracted. I got 10c for clover and 8 1-3 for heartease. I figure that the increase fully paid me for my time and cash outlay, as I am \$5 per colony clear. My, but how that thick heartease honey does sell! They have bought all I had to sell and are chasing me over the country for more. I have just received a letter from an

adjoining county ordering \$2 worth (twenty pounds) and the writer says he could sell a barrel of it for me. I am going to work up just as fast as I can and when I get more bees my trade will grow, and who knows where it will end.

Will some net tell me whether it will injure honey to keep it in a galvanized tank. I must provide some kind of storage room for next year, and would prefer a steel tank if it is safe.

BEE CRANK.

NOW

is the time to subscribe for the
PROGRESSIVE

ONLY 50C A YEAR.

**GOOD THINGS IN THE
KEEPING PRESS.**

Somnambulist.

One's faith in humanity as well as one's reliance on their own senses receive a very distinct shock on opening the American Bee Journal for Dec. 5th.

A cut representing the old gentleman in the act of manufacturing comb honey, is the prominent feature on an opening page. This bright inspiration was obtained from the Chicago Tribune. There stands the old man, dipper in hand intently pouring paraffine on a section held in the other hand. Poor simple soul after getting so far along how ever did he manage to get caught?

The incongruity of the combweb ornament on his hat will appear with striking force to beekeepers as naturally they would think a man anything but now that had accomplished such a feat.

Since it's all in imagination anyway, why did not the cartoonist introduce us extensive arrangements for the

manufacture of this article? 'T would take one old man and a dipper a long time to have even one car load ready for shipment. Just as easy to have pictured great vats or tanks of parafine having faucets, beneath which automatic sliding section holders travel, carrying the ready filled sections to receive the finishing touch, or the beautiful parafine coating. Nay, further he might have introduced us to the departments where the sections of comb all neatly fastened in their frames are made and filled with the glucose. What a pity he was so short sighted!

How narrowly we missed being the beneficiaries of untold wealth of information! and what a great pity. Say, can't you pass around your cards of condolence? Might not be out of order to send one to the Tribune.

In this famous, or infamous article, as beekeepers are apt to brand it, one complainant says "I know of no place in Chicago where one can purchase a pound of pure honey." Poor Chicago! Little "one hoss" Missouri towns can beat that. Another bit of valuable information from one Jones, a Pure Food Commissioner of the great commonwealth of Illinois is, that "it is comparatively easy for a purchaser to detect the imposition." "Genuine honey he declares has brown coloring around the cells. Glucose is perfectly white." What a fine excuse for a "little more sleep, a little more slumber" along about the time to remove supers; what a grand inducement to the extra fancy comb honey producers! After years of contriving and weeks of hustling to secure unblemished sections, only to be assured they are not genuine! Too bad!

What a vast amount of maneuvering, and how many sleepless nights might have been saved had this information but reached us years ago. On the other hand what a crumb of comfort is this knowledge to the slovenly, go easy beekeeper. The company of anti-section scrapers may confidently expect

new recruits for if the brown coloring around the cells is an indication of genuineness, the same coupled with a propolis bedaubed section would constitute a surety.

After a perusal of the Tribune article it will be hard for some beekeepers to believe that the "world moves."

R. C. Aikin begins his article "Apiculture as a Business" by saying "at last W. Z. Hutchinson has come to the decision that the business that best combines with bees is more bees." "He has yielded to the inevitable—to the march of specialism."

We may theorize, and plan, and prospect, but to succeed and even make a respectable living from any business in these times we must specialize. By this I mean that we must select one line of business and push that one thing.

He then proceeds to demonstrate to us that "there is no money in the business except in the hands of the practical apiarist."

A few of his thoughts are herewith presented:

The specialist, giving his time and energy to the one thing—mastering all the details and facilitating his production or conduct of the business—is able to discount all competitors who are less well prepared. The specialist having acquired the knowledge and facilities for handling the business, adds to its volume at a very nominal additional outlay and it is this increased volume of business handled from approximately the same basis of equipment used in the smaller business, that enables the special and extensive operators to discount the lesser.

Anyone who has enjoyed the pleasures and endured the pains connected with our apiaries can fully endorse his arguments all the way through.

In the following paragraphs he unfolds the danger flag and warns all of the risk there is of "paying to dear for the whistle."

One of the very first and most common mistakes made by all classes, is a failure to consider the cost, final chances of success and whether there is room and opportunity for their proposed venture. Suppose some one, has a longing to embark in the business in my territory here. He thinks I am making money, and surely he is as smart as I am—if Aikin can succeed so can he. He does not stop to think that I am already established

in the business, that I have spent years of study and hundreds and hundreds of dollars in investigations, experiments and advertising, have built up a trade—in short, have spent years laying the foundation for a business. Few stop to consider that it is not a question simply for mere personal fitness but of preparation and becoming fitted by practice and familiarity with the thing we are to deal with.

In the foregoing estimates I have put the figure much higher than any green hand could accomplish. I have taken it for granted that all the product was No. 1 honey, whereas the unexperienced would have from $\frac{1}{2}$ to $\frac{3}{4}$ No. 2 and culls. For the past ten years I put my own general average at 40 pounds. My general average price has been, for all grades about \$2 a case—8½ cents a pound. Sections, foundation and cases cost 2 cents, or 80 cents a colony. Investment for 200 colonies and equipment being as per previous tables \$1,500, I allow on this 10 per cent for interests, and 10 percent more for wear and tear—20 per cent of \$1,500 is \$300, or \$1.50 a colony. A 40-pound yield at 8½ cents makes the gross income per colony \$3.33. Deduct from this the cost of sections, foundation and cases, interest and wear and tear—the 20 per cent on capital invested—\$2.30 a colony, leaves me \$1.03 a colony, 200 colonies giving me the sum of \$206 for my labor and caring for them.

If this is the way it turns out with one of so large an experience, what must be the result when an inexperienced person is doing the managing? There is no money in the business here except in the hands of practical apiarists.

In most of the trades and professions the crowded condition at the bottom of the ladder and the vacant room at the top is accredited to individual incompetency, but in our business personal capacity is but one of several important factors necessary to success. Theoretical beekeeping around the Winter's fireside is one thing and practical beekeeping in the field quite another. A mere amateur may operate the former, while it, not infrequently, requires a whole crew of experts, aided by all members of the family, regardless of sex, color or former occupation, together with invited guests thrown in for good measure, to control the latter.

How few of us but have seen men standing around all day in the cold and

perchance storm at, "the sale, only for the blessed privilege of paying three or four prices for old dilapidated hive inhabited by weak or otherwise inferior colonies of bees, and then taking extra precautions about moving their precious treasure only to find them dead in the Spring, or, should a portion survive, keeping them year after year, ever hoping for returns, (presumably on the "open sesame" principle) until all succumb to want and neglect, when the wrecks are converted into kindling wood. This too when the amount of the investment would have secured not only the kindling wood, but many a pound of sweetness with which to regale friends and family.

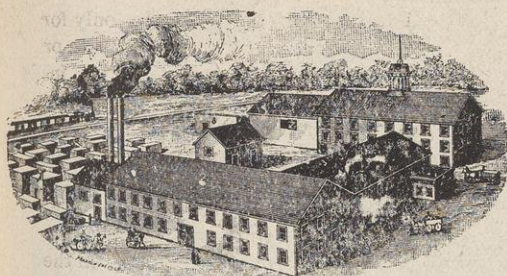
Of no use to erect a memorial shaft to their folly the memory of it is as "bitter a pill" as was formerly the sight of the spot an "eyesore."

Two sides to most everything in this world, add although I confess to the fault of keeping the brightest to the front most of the time, that does not do away with the dark side. As sure as there is a right side, just as sure is there a wrong.

There are sand bars and gravel banks over which our bark must be hauled by main force, when all hands, with coats and shoes off must get into deep water and with sleeves above elbows and trousers above knees give a hand. These past, there are whirlpools of disappointment and discouragement awaiting us and once within their vortex, we may be as completely swallowed up as was Jonah by the whale.

Or escaping these we may find ourselves stranded away up stream with the water having fallen so as to render return impossible. And while voyaging over hills and across valleys, in search of means where with to reach the starting point, we have before us the grand opportunity of a lifetime in which to study Nature.

Naptown, Dreamland.



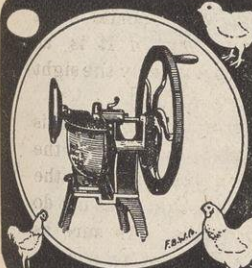
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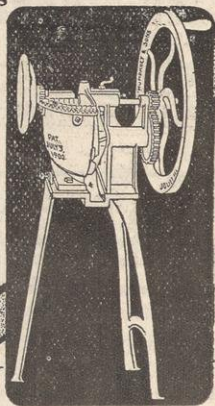
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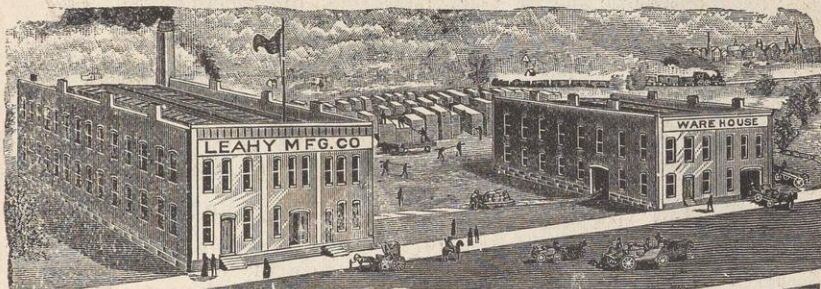
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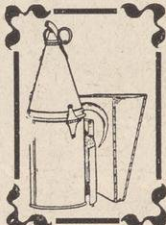
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