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Bee-Keeping for **Sedentary** **Folk**

By T. Chalmers Potter
Glasgow, Delaware

The A. I. Root Company
Medina, Ohio
Publishers

1908

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(Apr. 5, 1901—5,000.)

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Bee-keeping for Sedentary Folk

or for

Professional People—

The Clergyman
The Lawyer
The Doctor
The Teacher

and all others whose duties in life render it necessary for them to be mostly indoors, but who feel the need of some suitable recreation in the open air which will be at once conducive to health and remunerative to the worker.

T. Chalmon Potter
11

Medina, O.
The A. I. Root Co.
1908

RESULTS FROM THE DANZENBAKER HIVE IN DELAWARE

GLASGOW, DEL., Oct. 2, 1908.

THE A. I. ROOT Co.,
Medina, O.

Dear Sirs:

Yours of September 30 is at hand. If you print my *Interior* article, I suggest that under the heading, "The Money in It," you change the line, "Year's profit from one hive in money," to "Year's profit from *this first* hive in money."

Because, though that is probably a correct estimate, it is a *very low one*, simply because the figure is for a beginner on his *first* hive the *first* year only. I have lived here in Delaware, for example, for nine years. Thus far, no year has averaged me less than one hundred finished sections (Danz.) per colony. In 1907 with only three colonies, spring count, I had 501 perfectly finished Danz. sections. This year I started with five colonies, and had 515 finished sections despite the fact that not a pound was finished after June 15th, because of the drouth. I believe I would otherwise have had 800 or 850.

Yours sincerely,
(REV.) T. CHALMERS POTTER.

Bee-keeping for Sedentary Folk

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"There she is, Daddy!"—showing the queen to Papa.

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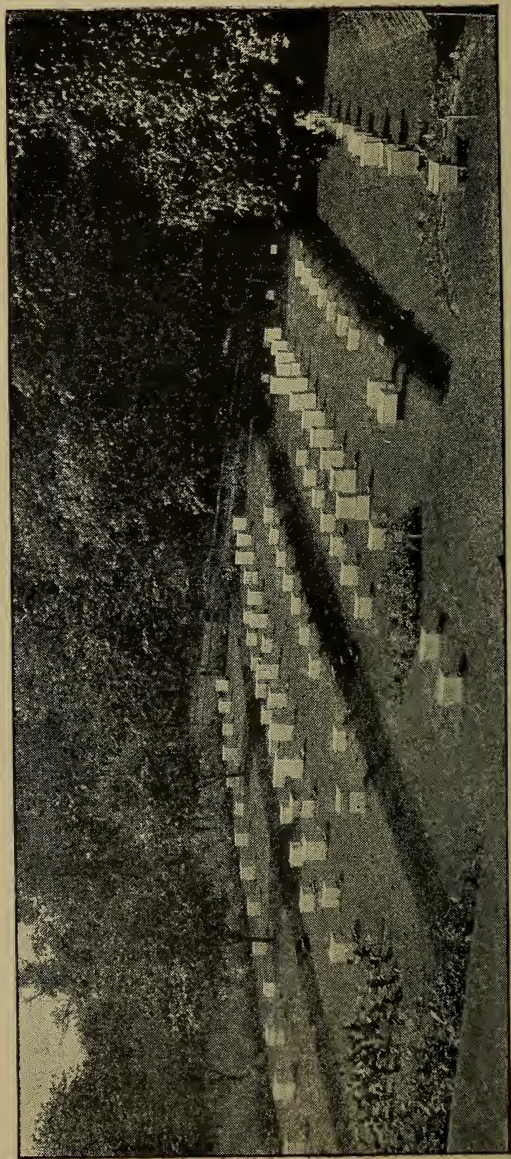
APR 11 1911

Publisher's Preface.

So many inquiries reach us every month from professional men and women, from clerks, teachers, and others whose duties keep them pretty close, yet who have some time to devote to and a desire to go into bee-keeping, that we were delighted to find in a copy of that well-known religious paper, *The Interior*, a few days ago the following article on "Bee-keeping for Sedentary Folk." It is the more authoritative as it comes from a practical bee-keeper of the class for whom he is writing. The publishers of *The Interior* have kindly given us permission to reprint the article, and to the many who are seeking information we commend it. The illustrations used herein are from our files, as those in *The Interior* were not available for our use. The accompanying letters are interspersed to endorse the author's statements. Any inquiries regarding the subject will be cheerfully answered.

THE A. I. ROOT Co.

Medina, Ohio, Oct., 1908.



A Model Apiary near Philadelphia, Pa.

First Acquaintance

My experience with the honey-bee reaches through a period of twenty-five years. In Princeton I kept a colony of the pretty, curious, and useful creatures in my room during my whole time there. I continue as enthusiastic over them as ever, because they are a never-ending source of stimulating nature study, beautiful to look at, wonderfully interesting in their operations, provide merry recreation in their housing and care, stock our larder the year through with delicious honey, and buy all the books in any one year that the tastes of a modest minister and his household demand. These should be good reasons why other ministers who love nature ought to be keeping bees for pleasure, health, and profit—and just as good reasons why lawyers and physicians, even with homes where there are only the smallest of yards or lots, may get gentle but wholesome diversion and supply their tables with the nicest of all natural sweets.

Professional people need not only exercise but recreational pastimes. Whatever learned walk a man may be in, he would be happier for keeping a few colonies of these honey-makers, curiosity-begetters, mind-rousers, and devotion-creators all combined. I can think of no hobby more respectable, no exercise less irksome, no study of nature more fascinating, no small bank account more readily possessed, than are assured to the busy professional who will devote a little time and means to it. I usually limit

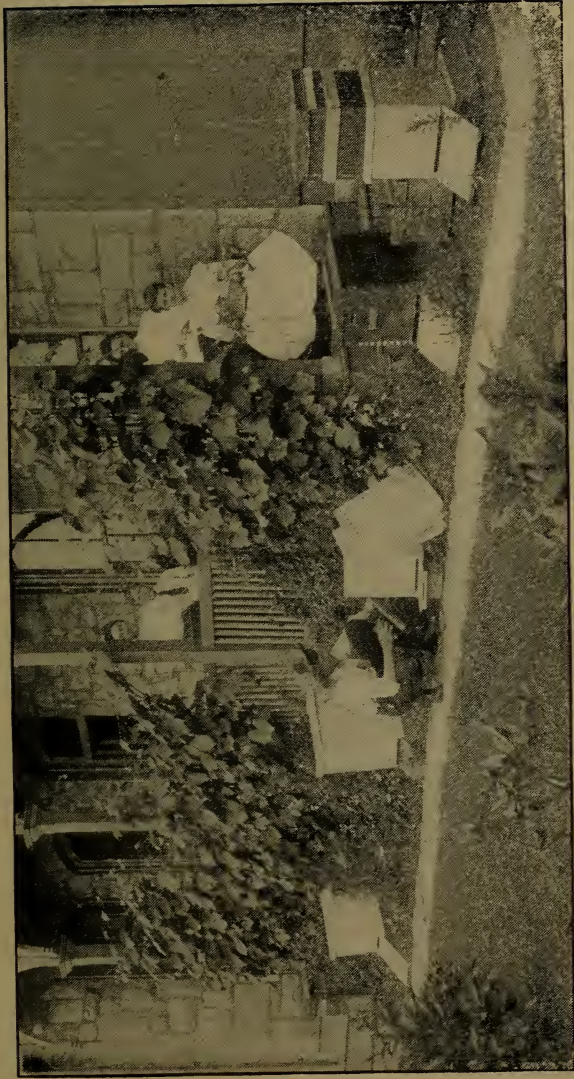
myself to ten colonies. A neighboring brother minister has twenty, and disposed of nearly 1000 pounds of comb honey last year.

THE IMPETUS TO BEE CULTURE.

If we live in a close-walled city, we can put our colony of bees in the window, up garret or somewhere else, and, if need be, can do well with them on top of the house. Out of sight, sailing their bee-line over everybody's head, they fill their hives with the luscious product just the same.

I got my start with bees when a young boy. My father was president of a woman's college, and among his corps of teachers was a professor of natural science, distinguished at that time throughout Ohio. He had a great fondness for honey-bees, and was the possessor of six colonies. I watched him open the hives, saw him secure hundreds of small boxes of honey containing a pound each, observed his veil, his old dog-skin gloves, his bee-smoker, found that he never was stung either on face or hands. When I realized this last my enthusiasm bounded, for I had always dreaded a sting. The picture of me, when a bee buzzed about, was of a boy running away as fast as two legs could carry him, wishing for four or six, and swinging hat and arms with excitement and ludicrous rapidity. I can now assure you that you will rarely, perhaps never, be stung if you provide against it, with no more trouble to do than to put on hat, overcoat, and gloves against weather.

Now, also, that I have learned more of the scientific side of bee-keeping, I have ascertained that reputable breeders of honey-bees have eliminated vicious characteristics from their strains of them as others have done the like with cattle, horses, dogs, and other animals, or as strains of poultry, pigeons,



The path in front of these hives shows how even a small dooryard permits the keeping of bees without trouble therefrom.

and song birds have been cultivated for feather, shape, note, or other desirable quality. I have two colonies of Italian bees that will let you open their hive and take it all apart, do any thing except pinch or jar them, without offering to resent your intrusion upon their home—though I admit that even the gentle Italian may try to use her sting if she is squeezed, and takes it ill if you knock her hive or drop with a thug the frame she is on.

During the years of my theological education at Princeton, a young man on the floor above the one where I had my room was possessed of two colonies of bees, one in each window of his apartment. That was a “new one” for me. I had never thought of such a thing, but quickly worked up to the determination of having one in my own room. The sills of those windows were very commodious. He had carefully sawed out a piece from the lower sash, placed the hive on the wide sill where it safely sat, pushed the hive entrance up against the kerf in the sash, and the process was complete. The bees flew back and forth without getting into the room at all. We both were ardent in the small work, and had great pleasure in operating one or two colonies. We talked about them, their singular habits, skillful performances, and of what, under given conditions, we could make them do. We opened the hives, raised the windows to let the flying bees out, killed the queen of one colony, sent down to Georgia for a fine Italian queen by mail from a bee-loving physician there who raised queens for bee-keepers, sprinkled her and the bees of the queenless colony with sweetened peppermint water, and dropped her in among them. They balled her at once. We took our penknives and divided the angry host, put on more scented water, worked and watched until

they had accepted her and grown quiet, when we shut the hive up for that day.

— The next day we began observations again, to find her fair body gliding with dignity and deliberation over the brood-combs, her retinue faithfully following her about, every head deferentially turned toward her. Occasionally she stopped; a worker-bee would thrust out a tongue from which her ladyship drew for herself honey fresh from the other's honey-sac; then she would thoughtfully pursue her way over the combs, sticking her head into cell after cell. If empty, she at once thrust herself into it, depositing an egg. Thus she continued before our eyes—a symmetrical lovely little creature shining with black and gold bands over her back—at the rate of 3000 eggs in a day. In twenty-one days we saw her young bees about the entrance. We began to read bee-books. We took, between us, a periodical treating monthly the subject of apiculture. When vacation came we put on each hive a crate holding twenty-eight one-pound sections, such as are sold in groceries, in which they were to store surplus—that is, honey for us to remove—besides what they stored below in the brood-frames for themselves and for the support of their young bees. When we got back in the fall, we never failed of our full crate of twenty-eight boxes of honey. We gave it around to professors or to friends. One of mine, on one occasion, was presented to our much-loved and world-known Professor William Henry Green. His acknowledgment is one of my autograph treasures.

If we had been on the scene during the honey season, we should have secured at least one crate more of honey; for, on the average, I have found that an attentive bee-keeper in a small way—that is, say with two to five colonies—will generally get two su-

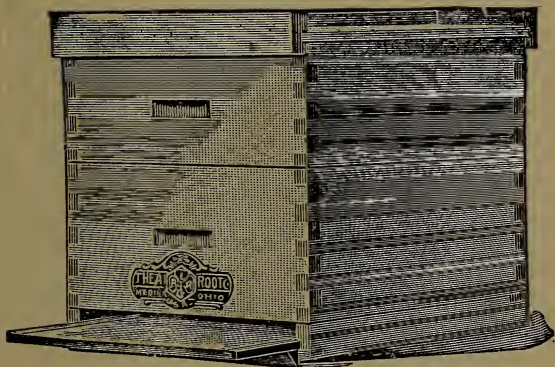
pers or crates of the pound sections from each colony. The hives I now use are a trifle wider than those of the Princeton days and take a super holding thirty-two. I seldom fail, in fair honey-yielding summers, to have two of these filled by each colony—sixty-four pounds—sometimes more. The season for honey harvest is usually short, lasting from the middle of May to the middle of July in the Eastern States, during white-clover and linden bloom. In the South and in California it is longer. In the Middle and Far West it is extended, and bees will store surplus honey throughout the early fall. Should we have any sections not completely filled with honey and nicely capped over, we keep them until the next season, putting them into the first crates that go on the hives. A few, or even one, of these will, after the husbanding of honey all winter, coax your pets at the opening of the season to go to work for you in the sections. Apiculturists call them “bait sections.”

THE KIND OF BEES TO GET.

While there are different races of honey-bees, I have had no experience with any except the ordinary “black” (or perhaps “hybrid,” for these two are not always readily distinguished) and the “Italian.” The blacks are the native American bees, black in color, usually ill-natured in disposition, but as fine honey-gatherers as any. Hybrids are so called because they are a cross between the black and the Italian. Usually they may be told by being less black, having some of the bright gold ring marks of the Italian; are excellent workers and less cross. The blacks cap their honey to greater perfection than any other race, it being absolutely white, the honey under the cappings being even with the top of the cells. No honey is more captivating to the eye.

The sole reason why we do not have this bee above all known others is because she is charged with ineradicable total depravity. Most bees may, by smoke, be instantly subdued, so that one may comfortably work among them, but the blacks are incorrigible. For many years the Italians have been the ruling race for beauty, business, and mildness of disposition.

Besides these three there are others, but chiefly the Cyprian, the Carniolan, Holy Land, and Caucasian races. These differ from the blacks, hybrids, and Italians some-



“The kind of hive is an important consideration.”
The author’s choice is the one shown above, the
Danzenbaker.

what in color, size, temperament, and propensity to swarm. But at present it is unessential for a beginner to know more than that the Italians are the bees to have and enjoy.

The kind of hive is an important consideration. That is, the old skep of our fathers can not be used without mental or oral profanity of some kind; and as to profit, it is out of the question. Then, also, the matter of raising comb or extracted honey has something to do with it. One hive facilitates the

production of comb. In another you can best work for the extracted article. The ordinary individual denominates all hives, not skeps or grocery boxes, as "patent hives." He means those actually made by skilled hands for the purpose of conveniently and profitably keeping bees.

Modern hives all have frames within, which may be easily removed or exchanged. They vary a little in size, but are very similar, providing practically the same cubic amount of space for comb-building in the frames, in which the bees store honey for their own consumption and to raise their young upon. Since I am writing chiefly for beginners I shall confine my counsel to such as keep bees for the raising of comb honey in the little one-pound sections so salable in the shops, for the reason that the average beginning bee-keeper will rarely concern himself with going to the extra trouble and expense of raising extracted honey (that thrown from uncapped combs by the centrifugal force of a machine called an extractor) although it pays if one has ten colonies or more and has the time for it.

No bee-keeper has tried or cared to try every make of modern hive. I have used four—the "Langstroth," named after Rev. Lorenzo L. Langstroth, the pioneer in modern bee-keeping, the first movable-frame hive; the "Simplicity," very similar; the "Dove-tailed," similar again, but named so because its corners were locked by sawed insets instead of being all nailed. These three have brood-frames within of about a size. The fourth, which ten years ago I decided upon, and believe to be the best hive made for the raising of fancy comb honey, the greatest amount of it in any one year, as well as the best one in which to winter one's bees without loss from cold, is the Danzenbaker.

WHAT IT COSTS TO BEGIN BEE-KEEPING.

NOTE.—Any discrepancy in the cost figures here named will be accounted for by the advance or decrease in price of the articles given since this was written.

Wherever you are—town, city, or country—I believe the following table will represent about your entire expense for entrance into the charming pursuit of keeping bees. It is my estimate for a year. The second season you will have increase of bees to provide for, but your proportional outlay will be much less, since some of your outfit is good for years, perhaps a lifetime. You will probably have one swarm each summer from every colony you had in the spring. You can have more if you desire. Your only new expense will be the hive and section-crate for the swarm, some additional section boxes to go into the super, and a little more comb foundation:

One-story hive, Danz. style.....	\$1.95
One section-crate or super, Danz. style.....	1.15
One hundred section boxes for surplus honey...	.75
One pound extra-thin comb foundation.....	.70
One Junior smoker.....	.65
One bee-veil.....	.40
One more hive for a swarm.....	1.95
One more section super.....	1.15
Old gloves and old straw hat.....	.00
One bee-culture book.....	1.25
Two-frame nucleus Italian bees and queen.....	4.00

A one-story hive is so named because it is the lower portion in which the colony is housed, raises its young, stores its supplies for food. In manufacturers' price lists what I have spoken of as a section-crate is often called a "super," because it holds the thirty-two section-boxes for surplus honey and is set above the body, the bees crawling up into it and going to work. The section boxes are narrow strips of basswood, kerfed in three places so that each one will fold into a little square. Those for the Danzenbaker hive (popularly known as "Danz.") when

folded are 4 × 5 inches, and the cake of honey in them is of that size and weighs a pound, a trifle more or less. You press the ends together with your hands, thus fashioning the sections, then place them side by side in your super until it is full. It is then ready for surplus honey; put on top of the body of your hive, the cover having first been removed, and then put on top of the super. All parts fit each other. As the hive now stands, body and super, it is called a one-and-one-half story, since the depth of the super is one-half that of the body. When two supers are on a hive—sometimes the case, as you would find later—you denominate the whole a two-story hive.

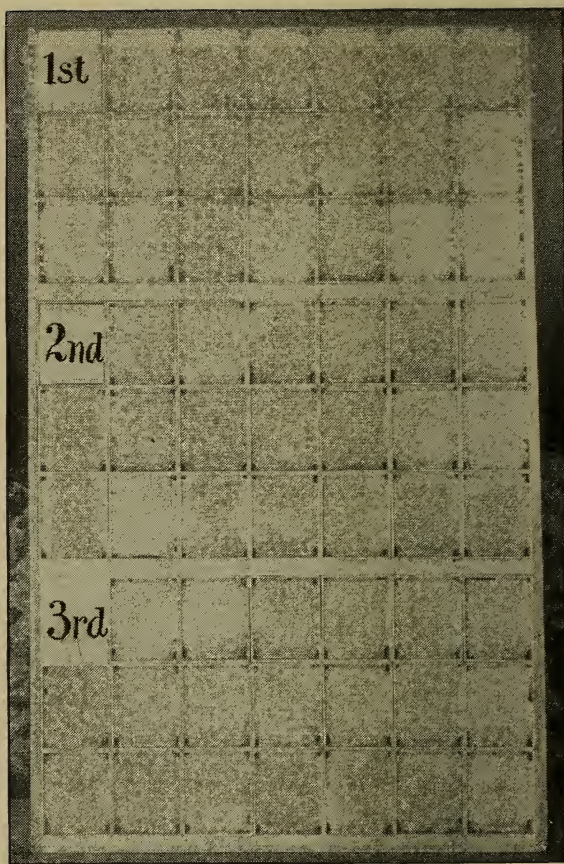
BEESWAX AND COMB FOUNDATION.

There is no such thing as manufactured comb honey. Extracted honey has been found mixed with glucose syrup, sugar syrup, or both, a chunk of genuine honey dropped into it, and sold in tumblers as honey or "honey compound." But no comb filled with honey or any other mixture and capped over as bees do it has ever been artificially made or sold. For years there has been a standing offer of \$1000 for any such product. It has never been and can not be claimed, and I wish that every reader of this would deny this canard that occasionally is foisted upon the public by those who repeat what they once heard or read. Bee-keepers know better. They are jealous about the matter. You may buy honey in sections and extracted honey in bottles, cans, or barrels from reputable dealers with the absolute assurance that you are getting the pure product of the bees.

I have noted this in order to make plain the fact that modern apiculturists to a man use what is termed "comb foundation," which is pure beeswax run through heavy

rollers having dies over their surface which stamp the exact size and shape of only the base of a worker bee-cell. It is made in four thicknesses or weights according to its designed use. The heaviest is placed in strips or sheets in the frames of the brood-chamber as an aid to perfectly straight combs, and to limit drone-cells all we can, since, left entirely to nature, the bees will build these in larger numbers. Thus we oblige them, in drawing out this foundation in brood-frames, to build cells in which worker bees alone shall be hatched, the amount of surplus honey each year depending almost entirely upon the hive being full to overflowing of these worker bees that do all the storing. If there is one secret of success in bee-keeping, it lies in having all your hives very populous at the time the honey-flow is on.

Comb foundation almost as thin as paper is used in the section boxes also, to save the bees the time they would lose in making all that wax and to insure straight cards of comb. Of course, since time is money, among bees as among men, we shall get quicker and finer honey-comb and more honey by fastening into each little section a piece of the beeswax foundation about the size of the section itself. It may be put in by hand, though one may buy for twenty-five cents a handy little device for doing it faster. The bees simply draw it out into full-depth cells into which they will hurry the surplus honey. Of this for sections there are thirty-two sheets per pound. Each sheet will cut five section pieces, so that you will be likely to use no more than one pound your first year. Some bee-keepers, especially those who try to proceed on the smallest scale of expense, including many beginners, use only small pieces of this foundation, say one inch wide, three inches long. These

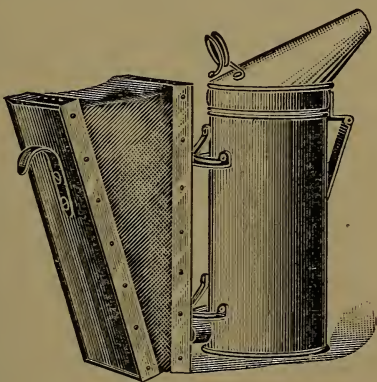


Prize comb honey from Danzenbaker hives.—Note the wonderful evenness of outline and regularity of construction.

are known as "starters." But after years of trial I am convinced that it pays to use the large pieces in the sections. Your honey will be fancier in grade, and your crate of it will likely be finished and ready to remove from the hive from one to three weeks sooner than another in which there were starters alone. You can see that this counts up fast, since the season for surplus extends usually through not more than two months.

SMOKER, VEIL, GLOVES.

A smoker is a nicely modeled hand bellows with fire-pot and nozzle through which smoke is blown over the bees as you lift a crate of honey off the hive, or into the hive entrance if you wish to open



The Root Junior Smoker.

it, particularly if your bees should be at all cross. Every beginner will feel safer to have his smoker, though experienced apiculturists often work all day without it. You could make your own veil of black mosquito-netting, but I think it best to buy. They come nicely made, bound on the edges, fitted with rubber cord at the top and bottom, gather about your hat and shoulders tightly, and cost but forty cents. Mine has been continuously used for twelve years and is yet good. My smoker I have used steadily for twenty years. I put down no figure for gloves to protect hands. Any holeless pair of old skin gloves will answer.

Not all your first outlay need come at once. Buy a book treating of the honey-bee

and the raising of honey. Secure it in the autumn or winter before you get your bees. While reading it and observing the many illustrations that make the subject simpler than I can exhibit it here, you will think it all easy, as indeed it is—become so interested and enchanted with bees, their ways, their honey, and the shrewd means devised to secure it readily from them, that you will be impatient for the time to arrive when you may begin the sport.

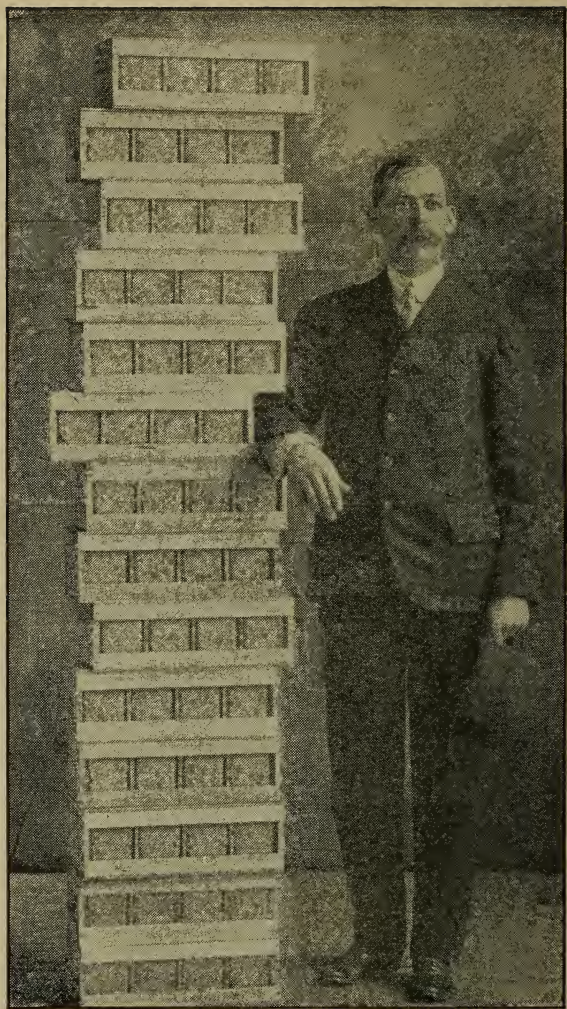
Of the items in the table given above, you need pay out in the winter or early spring only for Nos. 1, 2, and 10. Your book will answer all questions. Nos. 1 and 2 will educate you in advance about handling a hive. A few weeks before white clover blooms, get No. 11; that is, your bees. Also get 3, 4, 5, 6, and have 9 in readiness. Nos. 7 and 8 you may secure later, the middle of May, to be ready for a swarm likely to come out two or three weeks after the honey harvest arrives. Of course, if you can spare the money it will be best to buy all at once and familiarize yourself with each article as you read your bee-book.

WHAT TO DO FIRST.

There is little to do to get your colony at work for you. Purchase your bees from some dealer who can send them on the sized frames of your hive. He will send these frames and the adhering bees in a "nucleus box." They will be tacked in and a piece of screen wire fastened over the top of the box to insure them plenty of air. Put on your veil and gloves. You will not need a smoker after the shaking-up they have had. Remove the wire. Loosen and lift out the frames, setting them into your waiting hive, removing two of the new ones to do it. Cut a small piece of table oilcloth to fit over the top of all the ten frames, spread

it down smoothly, put the cover on, set the hive where it is to remain, and they will do the rest. In the latitude of Philadelphia or New York, Cincinnati, or St. Louis prepare to fill your super with foundationed sections and put it on the hive May 1 to 10, according to the season. My belief is that, to secure honey in the section boxes under the most favorable conditions, they should be on the hive at least one week before white clover comes into bloom. This is to give your bees time to get the comb in the sections all built, ready for honey to be rushed in the moment clover blossoms appear.

In case your colony sends out a swarm, which it will likely do, shake them off the limb or bush where they have settled, upon the uncovered frames of your reserve hive. They will be at home there in ten minutes. Spread the enamel sheet over the frames as you did before, and put the cover on. Now carry your old colony that sent out this swarm to a new place a few feet away and put the swarm where the parent colony was before. The bees in the fields at the time the swarm emerged will all fly in at the old stand, reinforce the swarm, immediately making it very strong. Put a crate of sections over them at once. They have no cells in the brood-nest yet, and can not have any under thirty-six hours, so that all the honey they bring in will go into the surplus boxes. They will give you more honey than will the old one, since the latter has been depleted at the very time of harvest. What you lose in honey, however, you gain in another colony, for you now have two instead of the little nucleus with which you began two months ago, and can sell either of them any day for \$5. Thus, if you have not time to care for many, you can get back a considerable portion of your previous expense by disposing of a colony, or several,



280 pound boxes of honey produced by one hive of bees in one season. The quality of honey shown is known as "Fancy"—the highest class. Produced by Robt. B. McCain, Illinois, in 1905.

and still have left others that are yielding you a nice income and will again increase. I will say that, if you are fond of carpentry and be near to lumber-yards, you might make your own hives and supers, taking these items off the above schedule of expenses. Or you could purchase them "knocked down" and simply nail them yourself. My advice is to buy the machine-cut, accurately made articles of the dealers. The parts all fit precisely, look better, last longer. I will further say that it is quite possible to buy a full colony of Italian bees in a two-story hive for \$5. The apicultural journals frequently advertise bargains of this kind on account of sickness, death, removal, or other reasons. But your conservative breeder of bees, in the business for a living, will seldom part with a full colony of selected Italians for less than \$9. That is why I counsel a beginner to get the nucleus and let it increase, as it will not fail to do. Besides, the experience is pleasant, and gives him information it would take him longer to secure.

THE MONEY IN IT.

If the season for honey is fair, you will get one super of thirty-two sections from the old colony, two supers (sixty-four sections) from the swarm. You may get two from the old if the queen is prolific. But we will count that only as a possible extra. I have had three from each. Well, that makes ninety-six sections. I have for years sold my crop of section comb honey for eighteen cents a section, in trade, to a fancy grocer. In the East, especially in country towns, I believe it can be marketed at about this figure, which is a little more than it could likely be disposed for to the city commission men, because your grocer desires to please you, his patron, and he likes to advertise

the handsome sections by saying that Rev. Mr., or Attorney, or Dr. So-and-so raised that. People will ask for it, preferring it to what is shipped in. Then, too, the grocer loses nothing by breakage, nor does he have any freight to pay.

Ninety-six sections of honey at 18 cts.....	\$17.28
First year's outlay.....	13.95
	<hr/>
Year's profit in money.....	3.33
Outfit on hand, valued at.....	20.00
	<hr/>
Total net profit.....	\$23.33

The second year will have 192 lbs., worth \$34.50, and will have only two more hives and supers to buy, perhaps two pounds of foundation and 200 new sections. You will have four colonies from which to get honey, your first-class colonies and your several appliances to dispose of in case you choose to sell. For these alone you would get back more than you ever spent. You will never sell. See how fast the money mounts for the third, fourth, or fifth years. You have learned much, had fine exercise, more fun than you had any idea of, saved in groceries what you can put into books, and your approach to the Creator is more adoring and reverential than ever before.

An Unbiased Statement.

To show that the author is not exaggerating the profits of bee-keeping when the conditions are favorable, we insert the following unsolicited letter from a man of unquestioned integrity. We could secure many more like this if we chose to ask for them.—PUBLISHER.

ST. PETER'S LUTHERAN CHURCH,
NEW YORK, March 11, 1908.

The A. I. Root Co.

Dear Sirs:—Enclosed please find my check for renewal of my subscription to GLEANINGS for five years. I greatly appreciate GLEANINGS, not only for the good and plain reading matter, but also because it furnishes many kinks which otherwise one would be unable to find out. These kinks have enabled me in the last three years to sell from ten colonies on the average over \$100.00 per year. I donate the honey to my church for charitable purposes, and the members are eager to buy, because they know my honey is absolutely pure.

Yours very truly,

D. A. B. MOLDENKE.

The A. I. Root Co., Medina, Ohio.

Gentlemen:—Referring to the bees ordered for Judge Woods, of Marion, S. C., I beg to say that they arrived several days since by express, and at Judge Woods' request I went over to Marion to assist in hiving them.

The shipment of hives, etc., from Philadelphia, though badly delayed in transportation, reached Marion in perfect condition, and we had no difficulty at all in getting every thing into shape. The bees themselves seemed to be in perfect condition. We found only eight or ten dead bees in each nucleus. After my experience with the black or hybrid bees which I found on my place when I leased it, I was hardly prepared for the extreme gentleness of the Italians—even after all I had read concerning them. With the exception of one sting which I received by mashing a bee with my hand in placing my hand on the bottom of the cage, none of them offered to sting. They were very quiet, even after thumping out those which adhered to the inside of the cages.

With kind regards, and thanking you for your attention,
Aug. 11, 1908.

Yours very truly,
L. W. McLEMORE.

AN UNSOLICITED LETTER FROM A WELL-KNOWN AGRICULTURAL WRITER.

Dear Mr. Root:—I want to congratulate you and your sons, and all others connected with GLEANINGS, on the great improvement you have made in this magazine. Its columns are filled with helpful articles, and nothing that isn't of the highest tone ever appears, and it is beautiful in its make-up. The paper, printing, and pictures are strictly first-class. The double-page picture in the Jan. 1st issue is fine enough to frame. It is an educational matter to the young people (and we all ought to keep young) to have so perfect a magazine come into the home. Even the advertisements teach order—heaven's first law—and neatness and harmony.)

T. B. TERRY,
Hudson, O., Jan. 8, 1908.

HOW TO KEEP BEES

The novice in bee-keeping usually seeks for a simple book on bees, and in this he is wise. The modern text-books relating to bees are excellent in their way, but most of them are too technical for a mere beginner,



however well they may be written. A simple book written in clear every-day language is much better, even if it does not treat of quite so many little details which interest only the professional bee-keeper. In this respect "How to Keep Bees" fills the bill. The gifted authoress, who is a charming writer as well as an artist-engraver and bee-keeper, made a start with bees three different times, hence she had the opportunity of finding out for herself the difficulties and trials that beset the beginner with bees. She had no desire to make money with bees, but did so, however, because they prospered under her care and skill. For this reason she writes as an amateur to amateurs, making no attempt to discuss the

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knotty problems which the expert bee-keeper is interested in. The book is written in a charming literary style, easily understood, almost entirely free from the technical language used by bee-keepers. It is arranged in chapters, and is so eminently readable withal that any one interested in the subject can sit down and devour it clear through, the same as he would a modern novel. Every thing the average beginner desires to know is discussed, including what to order if you have no bee-supplies or bees. The print is large, and some very beautiful engravings adorn its pages, for the authoress is one of the most skillful wood-engravers in America. We can't do better than recommend this work to every beginner in bee culture.

There are twenty chapters in the book as follows: 1. Why Keep Bees; 2. How to Begin Bee-keeping; 3. The Location and Arrangement of the Apiary; 4. The Inhabitants of the Hive; 5. The Industries of the Hive; 6. The Swarming of Bees; 7. How to Keep from Keeping too Many Bees; 8. The Hive and How to Handle It; 9. Details Concerning Honey; 10. Extracted Honey; 11. Points about Beeswax; 12. Feeding Bees; 13. How to Winter Bees; 14. Rearing and Introducing Queens; 15. Robbing in the Apiary; 16. The Enemies and Diseases of Bees; 17. The Anatomy of the Honey-bee; 18. Interrelation of Bees and Plants; 19. Bee-keepers and Bee-keeping; 20. Bee-hunting.

There is also a bibliography and Index. From a beginner's standpoint it is a complete treatise on bees.

Cloth bound (228 pages), price \$1.10 postpaid.

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