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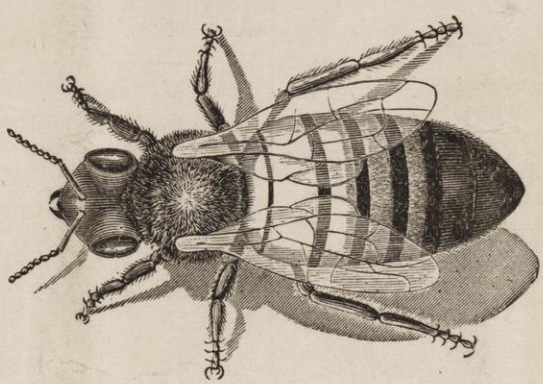
VOL. III. MAY, 1881. NO. 5.

# THE BEE-KEEPERS' INSTRUCTOR.



**Webster Thomas, Editor.**

## CONTENTS.

## ADVERTISING RATES.

Advertisements of less than 1 inch, 10 cents per line, each insertion. 1 to 3 inches, per inch, each insertion, 75 cents. 9 lines of minion, our advertising type, containing about 8 words per line, make one inch. Discounts will be made as follows:

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Special rates given on advertisements of ¼ page or over. Send for estimate.

If our readers in answering advertisements will mention that they saw them in the INSTRUCTOR, they will oblige both advertisers and us. W. THOMAS & SON.

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# MOUNT'N QUEENS.

These have been produced by careful cross breeding of the best Italians from different localities:

| | |
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| Untested Queens (laying) - - | $1.50 |
| Warranted " - - - - - | 2.00 |
| Tested " - - - - - | 2.50 |
| Pound of Bees - - - - - | 1.50 |

*SAFE ARRIVAL GUARANTEED.*

**Do not Send to Italy, When we Have Better Bees at Home.**

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P. O. B. 543, S. L. CITY, UTAH.

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Of our own Importation, Guaranteed Pure and Genuine. Our **Comb Foundation** was awarded the diploma at the N. E. Bee-Keepers Convention held in February.

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Price-List, with 3 samples of foundation, free. CHAS. DADANT & SON,
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—FOR—

# FEEDING BEES!

Send for our price before you buy.

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REV. W. BALLANTINE, Sago, Musk. Co. O. Ital. & H. Land Queens. Send for circular.

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**$66** a week in your own town. Terms and $5 outfit free. Address
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# S. M. OLDHAM,

Dealer in Apiarian Supplies,

# ITALIAN QUEENS and BEES.

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| Adjustable Hive, Complete | $1 25 |
| Bingham Smoker, by mail | 1 00 |
| Alsike clover seed, per lb, by mail | 50 |
| 3 " " | 1 25 |
| Sweet clover seed, per lb, by mail | 75 |

Price-list and hints to bee-keepers free on application.

**Reynoldsburg, O.**

THE

# Bee-Keepers' Instructor.

VOL. III. ADELPHI, OHIO, MAY, 1881. No. 5.

Published the middle of each month. | W. THOMAS & SON, Publishers and Proprietors. | Terms, 50c. per year, or 30c. for 6 months.

## Our Contributors.

For the INSTRUCTOR.]

### The Apiary.

A. F. MOON.

The INSTRUCTOR for March was on time and rather spirited—just what we like to see.

DESTRUCTION OF BEES.

From the numerous reports received from the Northern, Eastern and Western States the past winter, it seems that a large per cent. of bees have died from the old complaint—dysentery—of which there are many conflicting opinions with regard to its origin. Some tell us that it is the cold weather, while others say that the great destroyer is bad food. The latter was our first opinion, and is our opinion still, and is based upon our personal experience. When this disease first made its appearance in Michigan we had already wintered bees successfully over twenty years, seldom losing one swarm in fifty; and we had just as cold weather then as since. We know of one or two "old fogies" who always wintered their bees in the common box hives, which sat upon inch blocks on a platform where the cold, bleak winds could pass under the bees, and strange to say they seldom ever lost a swarm. The bees would often come through the winter in splendid condition, and often cast their swarm several days in advance of others that were wintered in hives closely made. Some will ask, why was this? Well, there is a cause for all things, and our opinion, based upon the results of our own observation, is this: At first but little moisture accumulated in the hives, and the bees were kept dry, notwithstanding the cold, and they remained in a dormant state a good part of the time. Being dry and having "good, pure" honey for their food, they kept in a healthy condition. A good large hive of bees seldom, if ever, suffers from cold, if it is kept dry and has plenty of good honey, which fact has often demonstrated itself to every experienced bee man. We have often seen old box hives, warped and split from top to bottom, with cracks and openings from one-fourth to one-half an inch wide, and it is an undeniable fact that the swarms in such hives were generally strong; the same may be said of bees in old barrels, which every bee-keeper knows are thin, and could not be much protection in warding off the cold. We were in Genesee county, New York, about twenty years ago, and while there were called upon to transfer some bees for a gentleman living at Pine Hill. [The previous winter had been a very severe one.] The bees were in box hives, which had been made with inclined bottom boards, but from some cause there were no bottom boards to the hives then, nor had there been for two or more years. The hives were suspended by cleats nailed to their sides, and the bottoms of them were about two feet from the ground, with the combs extending to within about a foot of the ground. In this position they had passed through two severe win-

ters, without any protection except that afforded by a common board fence, and strange as it may appear, those swarms were as strong and healthy as any we ever opened in the spring of the year.

We could cite numerous instances of the kind to convince bee-keepers that it is not the cold weather that has caused the destruction of so many bees, but to the intelligent mind in apiculture we think further proof is unnecessary. The fact is, as we have always said, the great trouble lies with the food they have, and not with the weather. If the cold weather is the cause of it, why did not bee-keepers all over the country suffer the same losses thirty or forty years ago—or even twenty-five years ago? Then we could winter our hundred or more colonies and seldom lose a swarm; and it is all moonshine to say that cold weather is the primary cause of the mortality now. We have a few swarms that the honey boards were by accident left off of, and nothing but the cap that covers the boxes shielded the bees from the cold above, and yet they are the strongest swarms we have.

Again, some think that the cider mills are the cause, or partly so, of this disease, but our experience goes to prove that they are not. For many years before and after its appearance we had a cider mill within twenty-five rods of our bees, where thousands of bushels of apples were ground, and yet there were no signs of dysentery in my apiary until its general appearance all over the country, or nearly so. Was it cider that caused the dysentery? We think not, but that the great trouble was with their food.

When swarms become reduced in numbers they no doubt suffer, and many perish with cold. This has been the case with many in the South. But strong swarms with plenty of honey have wintered finely, and should the weather keep warm there will be swarms by the tenth of this month. The extreme cold from the North for the few hours just passed injured bees here rather seriously, as many swarms had extended their brood nest beyond their power to keep warm, when the cold wave struck us, and had to recede to more central quarters, leaving part of the brood to chill. Upon examining them we find some hives where the bees have thus left two frames of brood, which is all chilled. The weather is now warm again, and bees have resumed their business. The peach bloom did but little or no good; the apple and pear are now coming into blossom, and bees are busy searching for the nectar. We anticipate a good season.

### DO BEES FREEZE?

This question was asked and quickly answered at the N. E. Convention. Glad to see that they knew what they were talking about. "Three cheers" for you, gentlemen. When bees will winter sitting upon blocks from one to two inches high all winter, and the mercury for three days at a time from 20° to 25° below zero, we need have no fear of losing our bees by cold.

### BEE SMOKERS.

We are often asked, "who keeps or makes the best smoker?" We use the "Quinby," which is certainly a gem; yes, a "joy for ever." Others who use them are not slow to speak of them as the best in use. Any person keeping bees who ever expects to handle them should get himself one of these smokers. An apiary is as defunct without one as a house without a cook stove. And as we are not interested in their manufacture or sale, our only object being to see the best smoker introduced, we can certainly speak without our opinions being controlled by any personal considerations.

Rome, Ga., April 2, 1881.

If you would not call cider and the juice from rotten and half decayed fruit bad food, Friend Moon, we are at a loss to know what you would consider bad food. Of course

bees often gather honey that is not fit to winter on; but we think a good proportion of the mortality is caused by the STUFF bees gather from cider mills and orchards. The mortality the past winter has been much greater than usual, and from the reports we are receiving daily a large proportion of it can be traced directly to this cause. When the honey yield is good bees will not work on this decaying fruit, and the orchards will do no harm; but in such seasons as 1880, with empty combs and no honey flow, they fill up with death and destruction in the shape of the sour juices of decaying fruit. So it seems to us, though we may be wrong, and if so are open to conviction.

For the INSTRUCTOR.]

## Mortality of Bees.

J. W. GRIMES.

Having read the February number of the INSTRUCTOR through and found nothing satisfactorily accounting for the great mortality of bees this winter, I will give my reasons for this part of the country. Some claim it to be the cold weather; some long confinement, some one thing and some another. The bees are nearly all dead in this section of the State, and the causes affecting them here doubtless will hold good elsewhere. I had 30 stands, and but 6 are now living. So now for the reasons. To begin, we will premise that it was a poor honey season. During the long drouth in the summer bees quit raising brood; in fact, they did not raise enough to cast any swarms. The fruit season came on, and large quantities of it rotted in the orchards. And as there was no honey to be gathered the little workers carried in large quantities of the juice of this decayed fruit. The brood having all hatched out of the center of the hives, and left the combs empty, they filled them with this rotten apple juice, and as it was not honey it was not capped over, and as a consequence soured in the cells. The first cold spell that came, in December, the bees clustered in the center of the hive just where this juice had been placed, and sucked the sour stuff until they died of dysentery or perished with cold. Such stores not being proper food furnish no heat to the bees, and death is inevitable. Of course some died from cold and other causes, but according to my judgement this was the main cause. I was sick and could not see to my bees, and the consequence is as above stated, only 6 colonies out of the 30 living. If this sour stuff could have been thrown out with an extractor I think that most of my bees would still be living. It is true there are different *causes* for bees dying in severe winters, but a cause there always is, which, if known and fully understood in time, might have been removed or overcome. I think our *luck* is our own fault, either from the want of proper knowledge or for the want of attending to things at the proper time.

New Holland, O., March 2, 1881.

For the INSTRUCTOR.]

## Results of the Winter in My Apiary.

SAMUEL STEVENSON, M. D.

I went into winter quarters with 80 stocks of bees. Cold weather began by Nov. 6th, and by the 10th it was so cold that I could not work comfortably while packing my bees, without wearing gloves. I put 75 stocks away in boxes packed in chaff, and 5 were put in the cellar, for the reason that I had no boxes ready to put them in. From the commencement of winter it continued cold almost without interruption during

the balance of Nov., the whole of Dec., and January with the exception of about two days. The traditional "January thaw" failed to put in an appearance in this part of the country, although a few of the bees flew for an hour or so, Jan. 19th, during the middle of the day.

Feb. 19th was clear, bright and moderately warm, and 48 stocks had a good flight—the first during the winter. Feb. 26th was the warmest day we had during the whole winter, bees flying from quite early in the morning until 6 P. M.

During the latter part of Jan. and the early part of Feb., I observed almost every day that bees would crawl out of their hives and perish on the ground. For seven years I have kept my bees in chaff hives on their summer stands, yet I never before observed such a persistent determination to come out of the hives in cold weather. I examined several of them, and found nearly all clean and bright under their blankets and chaff; but there was an *unmistakable fecal smell* coming up from every colony I examined. The reason for their leaving the hives seemed clear to me now, and yet I felt powerless to remedy the difficulty. I assure you that I counted the days from that time until Feb. 19th, when most of the stocks had a fly, and were afterward quiet. All my stocks that were strong and well provisioned in the fall have came through thus far in good shape. I have lost a few colonies from starvation, every drop of honey being consumed, but I feel that I alone am responsible for this result.

Some of my weaker colonies seemed chilled to death, in spite of their warm covering. The ground here is frozen over four feet in depth, as the fall of snow in this locality has been comparatively light. Some people who claim to know tell us positively that bees will not freeze to death. I am satisfied that they will, just as surely as a horse or any other warm-blooded animal, and may at some future time detail some of my experiments to establish the fact.

There are some peculiarities about this wintering that seem a little hard to understand. For instance, here are two light stocks, equal in all respects, so far as we know, in amount of bees, stores and winter protection. Now for the result: One stock goes bravely through the winter with but a trifling loss, the other chills to death in a short time, with plenty of supplies around them and the combs dry and clean, while still a third dies early with the dysentery. Do not some stocks have greater endurance than others? There is a marked difference in men and our domestic animals in this respect. Why should there not be among bees also?

Morenci, Mich., March 5, 1881.

There seems to be quite a difference of opinion, Doctor, as to whether bees will or will not freeze to death, and if you have made any experiments that will throw any light on the subject, by all means send us a history of them for publication. Some apiarists who have had considerable experience claim that bees will not freeze, but for our part we can't see it in that light. The bee is a warm-blooded insect, and why it should not be as liable to be affected by the cold as any other warm-blooded creature we can not understand. We believe that it is, and shall continue to so believe until we are confronted by a good deal more evidence than has yet been adduced to the contrary. We will admit that live bees will not freeze, for they die long before the mercury indicates the freezing point, in the atmosphere to which they are exposed. We gave our views on this point in the March

number of the INSTRUCTOR, and have seen no cause to change our opinion. As to there being a difference in the stamina and powers of endurance of different swarms of bees, we think there can be no reasonable doubt. It is well known that there is a great difference in the industry and honey-gathering qualities of swarms that are in every respect as nearly equal as it is possible for them to be, and we think it is just as reasonable to suppose that there is a difference in the constitutional power and vigor, and ability to withstand hardships. In fact, it is very difficult to account for the great difference between some swarms in any other way.

For the INSTRUCTOR.]

## May and June Management.

S. M. OLDHAM.

If care has been taken, as recommended through the INSTRUCTOR, all stocks in mild latitudes should, by this time, be crowded with brood in all stages of development. In the far North stimulating by April feeding is now in progress, and in the Southern states the honey harvest is well begun. There the June management best applies to the month of April in more northern latitudes. It seems to be the instinct of bees, at this season of the year, to raise as much brood as possible. If any honey can be gathered they bring it in rapidly, working early and late to build up the colony. The more honey they gather and the more they are fed, the more rapidly they increase, provided the brood nest does not become too much crowded with honey. If cold, windy or rainy weather continues for several days, colonies are very much checked in development; hence, under such circumstances they should always be fed. Let the sun shine on the hives as much as possible during the month of May, except in warm latitudes. A different management should be followed for the rapid increase of colonies, than that of working for surplus honey. If increase of colonies is the object much feeding is required, and empty combs or foundation should be inserted as rapidly as the bees can appropriate them and take care of the brood. This should be done to the number of ten or twelve frames, according to size and capacity of hive. As soon as drones begin to fly, say by the middle or last of May, divide the strongest stock by finding the queen and removing the comb to which she adheres, and one or two more good frames of brood and honey, to a new hive, adding from two to four frames of comb foundation, or what is better, if you have them in good shape, frames of old comb. These must be added with judgment, according to strength of colony. Now, remove the old hive to a new locality, and place the new one on the old stand. The old colony will raise a number of queen cells, ready for inserting into other hives, as swarms are made by any of the methods recommended for "artificial swarming." We would advise the above method, or that of taking one or two combs from each of three or four hives, placing the nucleus thus formed on a new stand, giving each colony so formed a queen cell, or what is better, a fertilized queen, if you have them. By taking a frame or two from a colony, as the hive fills up, new colonies may be built up, the old ones prevented from swarming, while, at the same time, they are kept sufficiently strong to give excellent results in gathering honey. The novice should never attempt to more than double his colonies, and will perhaps attain the best results if he only makes one new swarm from each two, especially if he uses the extractor. We would advise getting an extractor even

if not more than two stands of bees are kept. The extractor should, however, be used with judgement; never in such a way as to rob the bees of their necessary winter stores. These directions concerning swarming apply in many places to June, according to climate and strength of colonies. If bees begin to lay out, by the hives being overcrowded, they should be divided, the combs extracted, foundation or new comb given, or honey sections put on. Sometimes, giving sections will not set the bees to work, and unless an extractor is at hand they should be divided or weakened, by taking one, two or three frames from them and giving them empty combs or foundation. If surplus honey and not increase is sought the extractor is almost indispensable; for if it is freely used there is much less danger of swarming.

Sometimes it seems impossible to prevent bees from swarming, and in such cases, when they swarm they should be given a fertile queen, if possible, and the hive filled with frames of empty comb or foundation. A frame of hatching brood from the old hive should also be given them. A hive from which a swarm has issued should be watched closely until it is known to have a fertile queen. No colony, especially at this season of the year, should be without a queen a day where it can be avoided. If comb honey is desired we should keep our colonies as strong as possible and manage so as to prevent swarming. To do this, empty combs should be occasionally placed in the brood nest, and empty sections kept on top, or at the sides, though we do not favor side-storing. If this and extracting will not check the swarming (and you do not want them to swarm) place the hive above another with empty combs or foundation, so that they will have to work through the lower hive to get into the upper one. This will generally be successful. By the latter part of May or the first of June, if the honey flow is good, put *on* a case of honey sections, supplied with foundation starters, and if the bees should not take to them readily fill a *broad* frame or two with sections and place them at the sides of the brood nest. After they get to working well in these a portion, or all of them, can be placed in the case above, when, if the honey flow is good, the result will be all that can be desired. When the bees get to working well in the first case of sections, and the honey flow is likely to continue to justify it, a second case of sections should be placed on the hive *beneath* the first one. As fast as the honey is capped the sections should be removed and replaced with new ones. Where extracting is resorted to surplus combs should be kept on hand to replace those taken out to be extracted. This, and other necessary precautions, should be resorted to to prevent robbing.

Reynoldsburg, O., April 23, 1881.

For the INSTRUCTOR.]

## Elements of Success.

REV. L. S. JONES.

There are men who succeed in almost everything they undertake, while there are others who almost universally fail. It is important that we should study these successes and failures, for such a course will enable us to apprehend those necessities of which we must avail ourselves in order to succeed. In bee-keeping, as well as in other branches of business, "knowledge is power," and without this element we are doomed to constant failure. Hence, my advice to those who contemplate engaging in apiculture is to seek by every means in their power to acquire an extensive knowledge of the business, as *the more knowledge the more certainty of success.* Not many years ago knowledge regarding bee culture was limited; but now it is abundant, and he who does not seek to inform himself does not deserve to succeed. Does anyone

ask the question, "will all this effort pay?" I answer, just as certainly as it pays to be informed in any other branch of business. I wish to remark here, however, that in this business, as in many others, we are liable to deceive ourselves by supposing that a few months' study is entirely sufficient to raise us to the highest pinnacle of knowledge; and it is very common for beginners to make very positive assertions, which only make the veterans smile. We justly admire the enthusiasm with which beginners pursue this study, but it is well to be cautious, lest theories be set afloat which will do mischief.

The importance of knowledge in this business is easily shown: A friend lost a number of swarms by the bees coming out of the hives a few hours or days after being hived, and escaping to the woods. A large second swarm came out, and thinking to save them he clipped the queen's wing. The result all intelligent bee-keepers well know. The swarm stayed, but in the course of two months it had dwindled to a mere handful, and the most of these were drones. The queen was not fertilized.

A few days since I saw a bee-keeper of the old-time kind who was breaking out the lower combs in his hives. They were very good natural combs, and looked to be about three or four years old. When asked why he did so, he said that the combs were *too old*, and that the bees would do better on new ones. Little did he think of the great injury he was doing to his bees, and the loss that he himself would sustain. I presume it is hardly necessary for me to remark here that combs will not be very materially injured by being in use a score or more of years; but as it is well to have as much light as possible on the various questions relating to bee culture, I will give one instance of the length of time I have known them to remain servicable—and by the way, the testimony is entirely reliable: Mr. Philip Putt, of Tuscarawas county, came into possession of a "bee" in 1841, which proved to be a good one and furnished a great deal of honey. It received no attention whatever except at "robbing time," when the surplus was removed with the outside supers. The breeding combs were never touched. In 1879 Mr. Putt came to me to see if I could tell him what was the matter with this hive, but as the combs could not be examined without tearing the hive to pieces I made no examination. The colony perished the following autumn, the combs having been in use thirty-eight years.

Last summer two men living about three miles from me sent for two tested queens, paying nearly six dollars for them. Neither had any knowledge whatever of any difficulty to be experienced in introducing, thinking that nothing was necessary except to liberate the queen at the entrance, when she would walk right in and take possession. Trial convinced them that their plan would not work, and I think, Mr. Editor, that you will agree with me that "they paid pretty dear for their whistles." Experience is a *good* school, however, and they have learned their first lesson well. But one-fifth of that money spent for a bee journal would have saved the other four-fifths, and a good deal of vexation.

And now, kind reader, do you wish to engage in this business and bring it to a successful issue? If so, take this advice: Arise, follow the leaders and fear not.

New Philadelphia, O., March 17, '81.

For the INSTRUCTOR.]

## Those Queens.

H. L. JEFFREY.

I notice that Mr. G. W. House, in his criticisms last month, "kind o' gins" Mr. H. Alley a free advertisement, and holds him up as an example for the rest of us bee men to square our conduct by; though

I must say I have seen the highest colored queens from Mr. Alley's apiary that I ever knew of being sent out. Mr. House then calls attention to my 75 ct. queens raised in 1877, which makes it necessary for me to make an explanation in regard to those eleven queens. At the time I raised those queens I had 14 hives in that apiary; one to raise drones, one to raise queens, one to build my queen cells, and eleven to keep raising queens. The apiary was so isolated that out of 35 queens previously reared all were purely mated. Just after the rearing of these queens and after a large proportion of my drones had died off, the colony of blacks, full of drones (the comb being one-half drone comb) was brought near my apiary, and outnumbering my Italian drones four to one, the chances were that many of the eleven queens would mismate. Being foolish enough to believe this, and knowing that I could rear another lot of queens in less time than to test those on hand, I showed the queens and remarked that the *batch* was lost. The man that got them knew what he was getting and looked upon them as most apiarists would, considering them even if mismated better than blacks, and ran the chance of getting good prolific queens at low figures. I do not practice selling queens that I am unwilling to have my name connected with, and where a purchaser is dissatisfied will give another every time. Let us suppose that Mr. House has 50 queens to sell. 10 of them keep 9 L. frames packed with brood, 15 keep 7 frames full, and the other 25 vary from 3 to 5 frames. Would he send out those 10 best at $1.50, and the rest at the same price? Would it be fair to do so? If a queen with a fair test wont fill three L. frames for me in from 7 to 10 days, or from 5 to 10 frames while testing, I "give them to the bugs," and those who know me best know it. And among "those to save" if I find one whose bees are extra gentle, good color, first-class workers, etc., I *keep* such a one to breed from and improve the race, that others may also reap the benefit. Poor queens *generally* go to those who want "the lowest-priced ones," and they are surely entitled to them, because of their jewing-down policy. If a man writes for a No. 1 queen and pays for her let him have such a queen, and be sure her *qualities* are tested before sent. I paid a few years ago $9.97, expressage and all, for a queen, and will pay it again for her equal. If a queen will for three years, besides a stock, give me $15.00, I count her worth half this sum each year she lives. A queen should be worth half what the stock yields in surplus, if run to that end, and should not be bred from until the qualities of her workers are fully tested; and if it, according to the standard of half, should be worth $7.50, would it be an unfair bargain to sell such a queen to a breeder at from $4 to $5? Queens that wont give more than 20 or 25 pounds of honey in a fair year are "just not fit to live," though many such are sold to get that "almighty dollar," Further on Mr. House gets quite skeptical, and says: "I do not believe our queen breeders *ever kill* the poor ones." This doubtless is to some extent true, but I believe the assertion is too sweeping in its character. There may be a *few* honest queen breeders, as well as honest men in other callings in life. Thus much, then, to answer a few questions in a general way, and explain a matter that might have caused a wrong impression, all of which is done, not in a spirit of carping controversy, but with the kindest motives for the rights and privileges of all.

Woodbury, Conn., April 23, 1881.

For the INSTRUCTOR.]

## Thoughts by the Wayside.

L. H. PAMMEL, JR.

The warm breezes of spring are fast imparting new life to vegetation, and unfolding the long pent-up beauties of na-

ture. Old mother earth has for so many months held these beauties in her cold and icy embrace, that we have longed and pined to see the day when the balmy southern breezes would usher in the coming spring. The longed-for day has come at last, when not only the cheering songs of the blue bird and robin are heard in the land, but when the musical hum of the "busy bee" once more salutes our ear, as it flies forth in search of the delicate flowers as they now show their beautiful petals and invite the busy little worker to sip and be filled with the sweet nectar that has been distilled from the dews of heaven. Thus from morn till night and day by day does the little worker toil, gathering and treasuring up the nectar stores for its own and man's use, until in a short period of time it sinks, worn out and exhausted, a victim of its unceaseless and unrewarded labors. Thus after a life of unwonted industry or the trials of a merciless winter, our little friends pass away without sepulchre or funeral attention, and where are they? The beautiful flowers in the garden from which the rich nectar was distilled, are, perhaps, still fresh in our memory, but the little gleaners of this nectar are forgotten so completely that we cannot say with the Poet:

"Though lost to sight to memory dear."

The value of this interesting insect is unknown to a great part of the human family, and still from its life many valuable lessons may be learned—lessons of industry and economy, and the still more valuable lesson, that man as well as the bee is like the flower that blossoms for but a brief space of time, and then droops and dies; for he quickly passes away and, however bright, is soon forgotten among men. And to carry out the figure of the Poet Gray, we may say:

"Full many a flower is born to blush unseen,
And waste its sweetness on the desert air."

La Crosse, Wis., April 26, 1881.

For the INSTRUCTOR.]

## Notes From California.

U. K. LYPTUS.

The April number of the INSTRUCTOR has just come to hand, and quite a creditable one it is, indeed; and may be considered a model for some of the older journals, even the oldest not excepted. I see from the accompanying blank that you desire report of bee operations etc. I hardly consider myself a bee-keeper; that is, do not keep bees for profit, but if you wish a report from one who keeps bees for the pleasure of it, and for the luxury of the delicious nectar one may feast on at leisure, I will send you my report and communication combined, not strictly following your list of questions:

The spring of 1880 did not open very favorably for the honey producing flora, consequently increase was retarded about 35 per cent. The season taken altogether was not a good one, the yield being far from the best. I only worked for comb honey, and have kept no account of the total amount obtained. Some colonies did very well, which I attribute to the extra industriousness of the bees, which were a cross of the Italian and common bee of this state. We have no *black* bees in this part of the state. I prepared all my colonies for wintering on their summer stands, which plan is generally followed in this state, and which suits me so well that I intend to follow it altogether hereafter. They did splendidly, taking occasional flights during bright sun-shiny days, but barely peeping out on cloudy or rainy days, keeping indoors as wise bees should. Summer stands are nice to winter on except for one thing: The abominable ants will invade every accessible nook and corner. I never saw so many as last season. I killed them by the multiplied thousands.

I had the misfortune to have a number

of styles of hives, obtained by the purchase of colonies. The hive for me is 18x12 inches, and 12 inches deep, inside measurement, using the Gallup frame. The other arrangements about the same as Oatman's "Modest Hive," I like this style better than any other, and intend to use them altogether. Square frames are the ones for me. Would use no other than the Gallup or improved American.

Bees breed very well here at all seasons of the year, except a short time in December, when the queen takes a short rest. They winter on what honey they happen to have in the hive at the commencement of winter, and on what they can gather during Dec., Jan. and Feb., during which months sufficient flowers are in bloom to keep them busy whenever they can be out of the hives. Late swarms and weak colonies are likely to perish from the want of heat and stores.

I find a division board a great desideratum in the management of bees. It helps to keep the comb from molding. This with burlap or a piece of carpet over the frames keeps the bees comfortable. I generally let them have all ventilation they can get through four or more thicknesses of burlap, and sometimes put a sack filled with cut straw over the burlap, and find it beneficial. Have had pretty good success without these precautions, but better with them.

I have been troubled a good deal with a fruit-canning factory about a mile from my apiary, which is fully as bad as a cider mill. The bees, I am told, of the whole neighborhood, go there at times to sample the sweets of the factory, and are so illmannered that the employees sometimes turned the steam on them to get rid of them. They gave this up, however, after a few trials, as they found that even half dead bees could sting vigorously. Many bees are destroyed here, but honey gathered from the Company's immense fields of raspberries in our vicinity more than pays for our loss at the factory.

No dysentery in my apiary this winter. As I was forced to be absent the latter part of the season late weak swarms were left in an uncared for condition. Two of these perished for the want of stores. The winter was exceedingly mild and the bees have wintered accordingly. Those that have survived such a mild winter could not well be other than prosperous, and will, we believe, give better results than ever before. I think I can safely say that the honey crop of California will be larger than ever before. This I predicted some time ago, as may be seen by consulting the Jan. or Feb. number of the *Magazine*.

North Temescal, Cal., April 23, 1881.

For the INSTRUCTOR.]

## Rocky Mountain Honey Bees and Their Care. No. 1.

W. M. EGAN.

I shall devote this article to my plan of rearing queens for my own use and for sale:

If I wish to commence real early I build up my choice colony with capped brood from other colonies until they get a great deal stronger than any others in my apiary. This is to induce them to build queen cells, preparatory to swarming, in their own natural way. Of course I don't give them any brood from other hives that they can make use of for this purpose. I watch them very closely, and after they have about completed queen cells, and before they swarm, I take out the queen and three frames of capped brood and build them up again to repeat the same process. I have now some as fine queen cells as can possibly be raised under any circumstances, having been reared in a full colony, with no lack of food or warmth, and under the natural swarming impulse, where there is not so much hurry to obtain a queen and liability to select larva fed on worker food, which may shorten the life of the queen

in proportion to the amount fed, or the age of the larva selected. In order to know when the queen cells will hatch I examine them very closely, and calculate from the time the larva hatched, the size of larva, or the time of the capping of the cells. I then write the date of hatching on the frames, or better still, in a register kept for the purpose. Two or three days before the queens will hatch out I transfer the cells, where there are two or more, to other frames of capped brood, so as to have but one cell on a frame, taking frames of brood from other colonies if necessary, and putting an upper story on the queen-rearing colony to hold the extra frames if necessary. The cells transferred belonging to the colony will not be torn down, but fastened nicely, when we are ready to make our nuclei.

The day before the time for the first queen to emerge from her cell, prepare nuclei, by taking a frame with queen cell from the queen-rearing colony and one or two more from other colonies, filled with capped brood and covered with bees. Be sure there is plenty of food in some of the frames of each nucleus, and be doubly sure not to take a queen from another colony when you are taking frames of brood from them. I always hunt out the queen first (before I take bees from a colony not known to be queenless), then you can take your choice of frames and are sure you have not got the queen. I do not use nuclei hives, but use the short L. Simplicity hive, the frames running cross-wise, which I find to be more economical for queen rearing, and best for winter, etc. I sometimes put two nuclei in each hive and sometimes three and four, according to the number of hives on hand, usually three frames to each nucleus.

I arrange the hives in a hexagonal form to prevent loss of queens while out to meet the drones; that is, to aid them in marking their home, so they will not go in the wrong hive and get killed. After the queen becomes fertilized and commences to lay, she is sold as an untested queen, if I have the order; if not, she is allowed to remain and do her duty in the nucleus until some of her bees hatch, when she is sold for what she proves to be, if I have the order. If I like her and have not sufficient orders to take her, she is rapidly built up to a strong colony and made use of for gathering honey.

I do not have any trouble by having more than one nucleus in a hive, as the division board is made to insure no communication between them, and when I choose to make each one a colony have only to give each one a hive on the side next to its entrance, making four in a bunch, as I usually keep them to aid in winter protection, two facing South and one East and one West. When I sell a queen I simply slip out the division board the next day and unite them with the adjoining colony. If three queens are sold they are chosen from the same hive, if suitable, and the four nuclei make a colony ready to store honey. By this process I never have any queenless colonies, except the one having queen cells nearly completed, and hence, I am never troubled with that pest—the fertile worker. Of course, there is a possibility that a queen may be lost while out to meet the drones, and if the colony is not attended to it might soon get a fertile worker; but you have only to take out the division board and you are done with her.

Just one thing more and I am done. I am satisfied, not only from my own experience but from the experience of others, that it is necessary to cross breed. The bees themselves even carry this plan out as far as possible, and I have found that a little assistance in the direction the bees are working is generally beneficial. We can assist them in this direction to a great extent, for we can import from other apiaries where the best bees can be obtained, and introduce them by

rearing queens to be crossed with our drones. The cross of Italians and natives have been found to be better than either. But crosses among the Italians themselves I have proven to be superior in all respects. I expect greater developments in the future in this respect, with new varieties.

S. L. City, Utah, April 28, 1881.

For the INSTRUCTOR.]

### A Cheering Report.

RIEGEL & DRUM.

As you are expecting to hear from us as to our success in wintering our bees and their condition this spring, we report as follows:

We went into winter quarters last fall with 108 colonies, all left on summer stands, and came out this spring with 100 colonies, most of them in good condition. Those that were light were made up late in the fall from nuclei and fed, and as cold weather set in so early they did not get their stores sealed up sufficiently, and some of them became affected with dysentery.

Our bees were all wintered in Combination and Royal hives, with chaff packing on top. We use protectors, made from rough boards and nailed together in the form of an L to shield our hives from the North and West winds during the winter. These are all removed in the spring so as to give us free access to the hives. We find that these protectors are the cheapest and best arrangement for the purpose named that we can adopt, and when used in connection with double walled hives, with chaff packing on top of frames, there will be no trouble in wintering bees successfully in almost any climate, at least as far as protection from cold is concerned. As to wintering bees in cellars and pits, we think just as we did two years ago, viz: That it requires a great deal of labor and care, while the losses of bees are as great, or greater, than when they are wintered on summer stands.

Our bees have been gathering pollen and considerable honey during the last ten days, and seem to be doing well. We have commenced queen rearing, and will run 100 nuclei for that purpose this season.

Adelphi, O., May 5, 1881.

We thank you kindly, gentlemen, for your short and concise report of operations in wintering your bees during the remarkably severe winter just passed. And we do this all the more readily because there are some new points of interest connected with it that we have not seen in the reports of any other bee-keepers. We have reference more particularly to the wind breaks for your hives when taken in connection with the double walled hive and chaff packing. Your per cent. of loss was certainly very small and your success remarkable when compared with hundreds of your brother bee-keepers. It would be truly cheering if such reports were the rule instead of the exception. We are glad, however, to get even a few such reports, as it shows that methods of wintering may finally be discovered that will be reliable, and will bring joy and gladness to the hearts of many a despairing and disconsolate bee-keeper.

## Editor's Corner.

From some cause unknown to us "Review No. 2" failed to make its appearance this month.

Bees are in great demand now, and it would undoubtedly pay those well, who have them for sale, to let it be known through the INSTRUCTOR.

Bees in this section of the country are building up rapidly. They have been working lively on the maple and willow, and are now reaping a rich harvest from the fruit blossoms.

Subscriptions will have to commence with the current month hereafter, as we are entirely out of back numbers, owing to the demand for them being greater than we had anticipated.

We will send the INSTRUCTOR on trial three months, to persons who have never previously taken it, for only 10c. This does not much more than cover cost, but we know that it will pay us in the end.

In answer to inquiries we would say that the time during which glass may be purchased through us at $1,85 per box is not limited to the middle of May, but that our offer will hold good until further notice.

We desire a good agent in every locality in the United States, where bees are kept, to take subscriptions for the INSTRUCTOR, and offer such the very liberal commission of 30 per cent. on each subscription. Or anyone sending three new subscriptions for one year will be entitled to a fourth copy, one year, free.

Of the numerous exchanges that visit this office, none excel the *Semi-Tropic California* in its general "make-up," value of contents and the high order of its press work. The April number comes to us with an artistic-looking new title page, which adds more than ever, if possible, to its attractiveness. Southern California should be proud of such a magazine.

Don't give up in disgust, even if your bees have all died. Remember that reverses will come to persons engaged in any vocation in life—bee-keeping not excepted—and follow the good old adage of "Try, try again." If you can't do any better, buy one colony and commence on a small scale. One colony, in a good season and with good management, can be increased wonderfully, if bees, and not honey, are the object, and will generally well repay the second year the labor and money expended on them during the first.

We hope that our brother bee-keepers all over the country will continue to favor us with their reports, as far as possible, as we are anxious to get all the information that can be gathered that we may publish it for the benefit of our patrons. We file away all reports carefully, to be analyzed and made use of for the benefit of the bee-keeping fraternity, which we shall do at the proper season, with especial reference to the best manner of preparing bees for wintering, together with other matters that may seem to be of paramount importance.

Within the past few weeks we have received letters almost innumerable, giving the losses of bees, present condition, etc., etc., which are all very good and worthy of publication—if we but had the space. But if we were to publish all of them it would leave no room for the regular articles, and as it would be unfair to make any distinction between them—all being about equally good—the best we can do is to give a general review of the reports received, which will be found elsewhere together with a review of the reports which have been published in the other journals during the last six weeks.

In L. C. Root's article on the "Adulteration Bill" last month, where it reads, "Following is the text of the bill as introduced by myself," it should have read "as introduced by Mr. Root," as it was not L. C. Root, but another person named Root, who introduced the bill. Thinking at the time that it meant L. C. Root (the initials not being given, so that we had no means of knowing it was not), we changed "Mr. Root" to "myself." Since then, however, we have learned that we were mistaken, and offer this explanation to show that Mr. Root has not been claiming honors that do not justly belong to him. And as the *Guide* has copied the article, we would consider it as a personal favor if it would make the same correction to its readers.

### HOW TO SHADE THE BEES.

A correspondent recommends the following plan: "Plant a few hemp seed at the side of each hive, and when they come up thin out to one stalk to a hive. Let these grow until five or six feet high, and then trim to suit. In good soil hemp will grow from ten to twelve feet high, and make very good shade. In addition to the shade it affords, the bees gather large quantities of pollen from it all through the summer." Although we have never tried our correspondent's plan, we think it would be a very good way to shade

the bees when there are no trees or grape-vines for that purpose. Hemp is a very rank grower, and a stalk of it, if trimmed rightly, could no doubt be made to shade a colony very well during the heat of the day. The idea is worth trying, at least.

### THE WINTER'S LOSSES AND THE FUTURE PROSPECT.

Winter! bold tyrant of the North! has at last let go his icy grasp, and spring with all its cheering influences has come to dispel the gloom of the long "night of our winter's discontent." As the weary winter dragged slowly along, how anxiously we all looked forward for pleasant weather when our little pets would be released from their long imprisonment. Well, that time is here, but where are the busy honey gatherers? They have been released, it is true, a *few* to go forth to gather sweets from many a flower, while the *many* have been entirely released from future toil and labor, and have long since been numbered with the dead. Of all the bees put into winter quarters last fall a very large proportion of them in the Northern States are dead, while in many sections of even the sunny South, the mortality has been considerable.

We have been using every effort possible to get at the mortality, and have, we think, arrived at a pretty fair approximation of the losses of the winter. We are able to make our estimates from reports of nearly 15,000 colonies reported to us and to other bee journals. These reports are mostly from the Northern States, and show when taken in the aggregate a mortality of 55 per cent. We are satisfied however that the mortality is even greater than this, in the northern portion of the United States and Canada. We base our opinion on the ground of hundreds of small bee-keepers of whom we hear, but of whom we have no report, having lost all they had. Our conclusion is, therefore, after a full survey and investigation of the situation, that the losses north of the 38th parallel will be about 65 per cent. of the colonies placed in winter quarters while *many* of those that survive come through very weak. South of this parallel we think 25 per cent. will cover the losses. Discouraging as this state of affairs appears, we are daily in receipt of information showing that bee-keepers are generally looking forward hopefully, with the full determination to make the most of their present resources, and build up again as rapidly as possible. There appears to be a general feeling that we are going to have a good honey season, and while the amount of honey produced may not be as large as usual, better prices are expected. Many will no doubt run their apiaries more for increase than for honey. And just here we desire to give a note of warning to such bee-keepers, to be very careful not to increase too largely, either by natural or artificial swarming. No more colonies should be formed than can be built up good and strong before the time for going into winter quarters. Remember that the universal evidence is that only strong colonies can be depended on to winter well, or to be of any real profit, either for increase or for gathering surplus honey. By close attention and judicious management the severe disasters of the past winter may be greatly overcome, and for the future turned to advantage, if the lessons we have learned by the past are not too easily forgotten.

### CONSISTENCY, THOU ART A JEWEL.

As our readers no doubt recollect, we published a short article in the March number of the INSTRUCTOR, in which we spoke of the shabby way in which E. M. Harrison, editor of the *American Bee-Keeper*, had treated us. Lately some new proof of his underhand dealing has come to light: Nearly four months ago (Jan 29) he wrote to us, asking if we would exchange advertisements with him. In answer we wrote out an advertisement of the INSTRUCTOR and mailed to him, in which we set forth its merits as far as we thought consistent with the truth, stating size, price, etc., and requested him to send on his advertisement for insertion in the INSTRUCTOR. This was more than Mr. Harrison had expected. He had probably thought that in writing our advertisement we would follow the old stereotyped form of "Do you keep bees? If so, subscribe for the BEE-KEEPERS' INSTRUCTOR, a monthly journal devoted to practical bee culture," etc., and that after reading the advertisement his subscribers would know no more about the INSTRUCTOR than they had before. He had previously stated repeatedly in the *Bee-Keeper*, when he KNEW it to be false, that it (the *Bee-Keeper*) was the only magazine whose editor was not engaged in the sale of supplies, and he knew that if his subscribers found out that

there was another journal of the same size published at *half* the price, whose editor and publishers were likewise disinterested in their sale, that it would probably lose him some subscribers. Therefore, thinking that it would conflict with his interests if his patrons should read the advertisement, he did not insert it (after having himself asked us to send it); neither has he ever written us a word of explanation to try and excuse his conduct. As those who were interested in the matter well remember, one of his main points in the late controversy between himself and T. G. Newman, editor of the *A. B. J.*, was that Mr. Newman used the *A. B. J.* to further his own private interests, by refusing to admit advertisements that he thought would injure the sale of certain supplies that he handled (although we do not pretend to say anything as to the truth or falsity of the charge). Yet this saintly editor of the "producers' journal," after howling so frantically about the wickedness of "suppressing advertisements," is guilty of doing the very same thing himself when he thinks it to his advantage, and then, with a brazen impudence characteristic of the man, he copies our advertisement word for word in setting up one for the *Bee-Keeper*. If our readers who take that magazine will turn to page 81 of the April number, second column, and commence 27 lines from the bottom and read down, they will find our advertisement exactly as we wrote it, with the exception of a few words being left out at the beginning (and we offered to send the INSTRUCTOR on trial three months for 10c. instead of 15c.), and a few other trifling changes—including several mistakes—necessary to adapt it to the *Bee-Keeper*. Truly a fine specimen of honorable journalism, is it not! And yet he asks for support on the grounds that in conducting his journal he is not influenced by any personal considerations.

This is a matter that we disliked to say anything about, but we wish Mr. Harrison to understand that there is a point at which forbearance ceases to be a virtue.

## QUEENS.

Much has been said of late through the bee journals in regard to queens, queen breeding, etc.; and yet we think there is one phase of this question that is very much overlooked. Dollar queens are very generally condemned, *because they are untested*; but how much better, let us ask, *as honey gatherers*, are many of our tested queens. It seems, however, that it is generally taken for granted that all tested queens must necessarily be par excellence; and it is this phase of the question to which we wish to invite attention. Let us suppose a case: A queen breeder raises a dozen queens in the same colony from a pure mother, and while half of them mate purely, the other half mate impurely, and their progeny turn out to be hybrids. In sending out his queens it so happens that he sends his impurely mated queens as dollar queens, while the others are sold as tested queens. Now, as honey gatherers how much better would the progeny of one class of these queens be than the other? [We believe in pure blood, though many claim that the hybrids are the best honey gatherers.] And as they were all bred under the same conditions we can not see how the difference can amount to much except as to purity. But again, should there be any difference in the virgin queens would not the poorest of them be just as likely to be purely mated as the best, and what assurance would the purchaser have that he had a choice queen, even if purely mated? The idea we would here convey is this: That a pure queen might be very inferior, because reared without the presence of all the true conditions, while another, altho' a hybrid, or breeding hybrid workers, might be very vigorous and prolific, because all the true conditions were present in the colony in which she was reared. From these considerations we come to the conclusion that queens should be reared very carefully and always from strong colonies. If we were going to raise queens we would proceed as follows, *if we desired to get choice queens*:

We would select two colonies, one very strong, and the other containing the queen from which we wished to breed. In the midst of a good honey flow we would remove the queen from the strong colony, and on the sixth or seventh day would go through it thoroughly and cut out all the queen cells. Some two days previous to this we would hang a nice bright empty comb in the queen hive near the center, so that the queen might fill, or partly fill, it with eggs. On cutting out the cells in the breeding colony we would place this frame of freshly-laid eggs near the center of the hive, having previously prepared the comb so as to make it convenient for the bees to build

the cells. To insure choice queens we would not desire a very large number of cells, say not more than ten or fifteen to the colony. The colony ought to be full of young bees and hatching brood. Queen cells produced under such circumstances would have all the advantages of the "swarming impulse" with the additional advantages that *all* the cells would be started from eggs or from newly hatched larva. We believe that queens reared in this way, whether they mate purely or not, will, as a rule, be prolific and produce good workers, and that it is of much greater importance to have such queens, than to simply know that they are purely mated, without any assurance that they were carefully and properly bred. With proper care in breeding drones, from a portion of our best colonies, we may to a great extent control fertilization, and thus while breeding so as to attain a high standard of excellence in our virgin queens, we may also to a great extent control the purity of the race.

## Honey and Beeswax Markets.

REPORTED FOR THE INSTRUCTOR.

BOSTON, May 2.

Honey—Market dull. Comb sells at from 16@18c. Small stock on hand. 1 lb new honey very early next season will do well on this market. CROCKER & BLAKE.

CINCINNATI, May 3.

Honey—Demand is moderate for extracted at 8@10c on arrival. Comb very dull, prices nominal. We retail at 16@20c.

Beeswax—Sells at 20@21c on arrival.

C. F. MUTH.

CHICAGO, May 2.

Honey—Selling slowly with a fair supply on market. Best white comb 18c; fair color 15@16c; dark 12@13, with no demand. Extracted 8@9c. R. A. BURNETT.

NEW YORK, May 4.

Honey—Best white comb, neat packages, 16@17c; fair, neat packages, 14@15c; buckwheat, neat packages, 10@11c. Large boxes 2c per lb less than above. Best white extracted 9@10c; buckwheat 7c. Honey market is very quiet.

Beeswax—Guaranteed pure 24½@26 cents. This quotation is for large quantities; small quantities, selected, is selling at 28@30c.

H. K. & F. B. THURBER & CO.

ST LOUIS, May 2.

Honey—Slow sale; comb 15c for dark to 17c for choice. Extracted 9@10c.

Beeswax—Prime yellow 21@23c.

R. C. GREER & CO.

## Clubbing List.

The BEE-KEEPERS' INSTRUCTOR and any of the following bee journals, will be sent to one address, one year, at rates given in right hand column below The figures on the left give the regular subscription price of each :

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| " Gleanings in Bee-Culture | 1 00 | 1 30 |
| " Bee-Keepers' Exchange | 75 | 1 10 |
| " All the above Bee Journals | | 3 35 |
| " The Bee-Keepers' Guide | 50 | 80 |
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COOK'S MANUAL OF THE APIARY is one of the latest additions to bee literature, though by no means least. It is particularly valuable to the scientific bee-keeper (although in part II, under the head of "The Apiary, its Care and Management," instructions are given that the most inexperienced can understand[, as in it Prof. Cook has opened up a hitherto unexplored field, by giving a full description, illustrated by numerous engravings, of the physical structure of the Honey Bee. It is fully illustrated and handsomely printed and bound. Price, in cloth, $1.25; paper, $1.00.

QUINBY'S NEW BEE-KEEPING, by L. C. Root, is a handsomely illustrated, well-bound book of plain, practical information for bee-keepers. Its author is himself a bee-keeper—one who makes that his business—and is therefore peculiarly well-fitted to give that information to bee-keepers that is most useful to them. Cloth, $1.50.

A B C OF BEE CULTURE, by A. I. Root, embraces "everything pertaining to the care of the apiary," arranged in the handy Cyclopædia form, and contains much useful information, both to the novice in bee-keeping and the experienced. Cloth, $1.25; paper, $1.00.

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THE DZIERZON THEORY, by the Baron of Berlepsch, presents the fundamental principles of bee culture, and furnishes a condensed statement of the facts and arguments by which they are demonstrated. Paper, 15c.

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