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VOL. III.

DECEMBER, 1881.

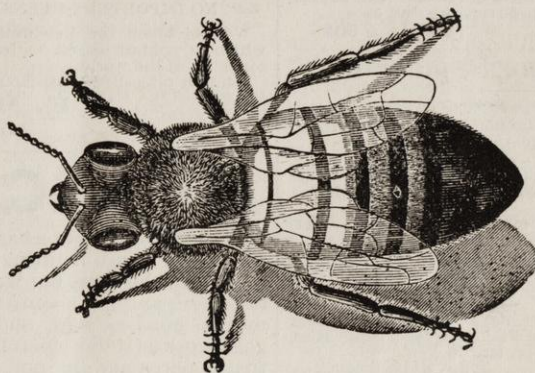
NO. 12.

THE BEE-KEEPERS' INSTRUCTOR.

For the Bee-keeper.

No. 12.

Last
number.



W. Thomas, Editor.

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1881.

1882.

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W. THOMAS & SONS,
Somerset, Kentucky.

Bee-Keepers' Instructor.

VOL. III.

SOMERSET, KY., DECEMBER, 1881.

No. 12.

Published the mid-
dle of each month.

W. THOMAS & SONS,
Publishers and Proprietors.

{ Terms, 50c. per year,
{ or 30c. for 6 months.

Our Contributors.

For the Bee-Keepers' Instructor.]

Notes on Various Topics.

DR. A. B. MASON.

Last spring I had two colonies of bees, and have increased them to eight, and have taken over 500 pounds of extracted honey from them. Four of them are so full of honey now that I shall have to extract to give the queens room to lay, and the other four have a good supply of honey, and all of them are gathering faster than they use it for breeding. The honey will bring me an average of fifteen cents a pound here. Two hundred lbs. of it is white clover honey, and over one hundred pounds is from sweet clover, and the balance is from fall flowers. The sweet clover (*Melilot*) from which the honey was gathered, is within from four to six blocks of the business center of the city (Toledo) on vacant lots and sides of the streets, and is over two and a half miles from my apiary. Two years ago there was but little sweet clover there, and I think I am safe in saying that if it was all in one body it would cover from four to five acres so closely that nothing else could grow. It commenced blossoming in June, and some stalks are now as fresh and full of blossoms as any were in July. It spreads very rapidly, will grow almost anywhere, and yields an abundance of honey.

Several times this season when going to the city on the street cars, I have heard people ask, "what is that that smells so nicely along here?" when in the vicinity of this mass of sweet clover. It is very fragrant, and my "better half" keeps some sprigs of it in her bureau drawers to give fragrance to their contents. It gives its peculiar flavor to the honey, which is as light colored as that from white clover.

If bee-keepers that are not in the vicinity of a supply from sweet clover would scatter a little seed in the fall on the waste places that may be found near them, they would soon have a supply of honey from it, and it comes, too, at a time when all other sources of supply have failed, and the bees are idle.

Prof. Cook, in his "Manual of the Apiary," says of the different varieties: "They bloom from the middle of June to the first of October. Their perfume scents the air from long distances, and the hum of bees that throng their flowers is like music to the apiarist's ear. The honey, too, is just exquisite."

Ever since white clover commenced to yield honey, to the present time, my bees have been gathering a surplus, and the way the asters look now, the prospect is that I shall get more.

I have had some foul brood to contend with this season, but by "eternal vigilance" and the use of salicylic acid I *seem* to be nearly rid of it. When I read what some say of it, and its cause, I feel satisfied that either they or I do not know what foul brood is, and the way I now feel is, that I'll either be without foul brood, or bees, or both, another season. Every apiary that I know of in this immediate region has it, but not as badly as last season, for the careless ones lost their bees last winter, and those that now have it have been doing their best to get rid of it.

I had an atomizer made with which to use salicylic acid as recommended by Mr. Muth, of Cincinnati. Eight grains each of acid and borax to an ounce of soft water, and whenever I found a cell of foul brood I dropped it full of the solution, and then with a little hooked wire (described below) or a pin head remove as much as possible of the stinking, sticky mass, and then sprayed the bees and comb with the acid solution. If I found several cells of foul brood in the same

comb, I shook off the bees before doing this, and when extracting I examined each comb and treated it as above before extracting. For several weeks I saw no signs of it, and hoped I was rid of it, but to-day (Sept. 27) while extracting I found several cells in one of my best colonies. Although I'm so fond of my bees that my wife says she believes I would sleep in a hive with them if the hive was large enough, I fear that if I had fifty colonies, and had to fight the bee moth larva, and foul brood, as I have this season, I should become so discouraged and disgusted that I would bid good-by to the bee business.

I have been very much annoyed this season with the larva of the bee moth working at the center of the combs and killing the brood, and very materially hindering the rapid building up of colonies. Most of the mischief is done when the moth larva is very small, not much over an eighth of an inch long and very small. Prof. Cook says of it: "Once a serious pest, it has now ceased to alarm or even disquiet the intelligent apiarist. In fact, we may almost call it a blessed evil, as it will destroy the bees of the heedless," * * * "while to the attentive bee-keeper it will work no injury at all. Neglect and ignorance are the moth breeders. Italian bees are rarely injured by moths, and strong colonies never." I certainly wish my experience might be in accordance with the Professor's statement. I have not been negligent in caring for my bees, and I have some of the best working Italians, and the colonies have all been kept strong. They certainly have been a very serious pest to me.

If those having but a few colonies are pestered as I've been with the bee moth larva, and have the time and wish to remove the dead bees, a very convenient little instrument for the purpose may be made of a small iron or brass wire (I enclose one) filed to a sharp point at one end and then bend about one-eighth of an inch of the sharpened end at a right angle to the wire, and at about an inch from this, bend into the shape of a ring, having the ring cross-ways of the point. In using hold the ring end between the thumb and front finger, with the hook toward the person using it, and then the moth larva, or dead bees pulled out with the hook can readily be pushed off with the middle finger.

I have had good success in cellar wintering when I have had the cellar as I wanted it. I want no better place to winter than such a cellar as will properly keep vegetables, and is properly ventilated. I want it so arranged as to admit the

needed fresh air, and if in the dwelling house cellar I like to have a chimney that is used every day reach down to the bottom of the cellar, and have a ventilator in it at both the top and bottom of the cellar. If it requires a stove in the cellar to keep an even temperature, the chimney need not reach the bottom, as the stove will answer for the lower ventilator. In such a cellar I have always wintered successfully, and last winter was not an exception.

I think that with proper preparation and food, bees can be wintered almost anywhere, but if they are to be left with their stores just as winter finds them, such a place as above described will be as good as any, and it certainly will be a saving of honey over out-door wintering, whatever the preparation or food may be.

If an unknown ignoramus like myself was to say what Mr. Heddon has said about "bacteria and pollen," some wise one would give me a worse scathing than your critic has been in the habit of giving your correspondents. I believe (I don't dare say yet that I know, for I have not tried it long enough) when bee-keepers put Mr. Heddon's theory on wintering into practice, that there will be less loss in wintering. Certainly the purer the food and the less waste material there is in it, the less liable the bees are to have dysentery. I am satisfied that if we were to confine our bees but a short time in the summer when they are breeding rapidly, we could have as genuine cases of dysentery as in the winter when the bees are overloaded with the coarse food they are often obliged to consume.

I am pleased with the INSTRUCTOR, and think it gets better and better, as do all the bee papers I take, and wish I could "afford" to take the advice you give Mr. Wright on page 528, and take "every one" of them.

Wagon Works, Toledo, O., Sept. 28, '81.

For the Bee-Keepers' Instructor.]

A Good Way for Rendering Combs.

THOMAS BALCOMB.

Permit me for the benefit of our bee-keeping friends that cannot afford a wax extractor, and for those that find the extractor too slow for large quantities, to tell how I got a lot of beautiful yellow wax from the blackest, filthiest, "stuff" (old combs) imaginable:

I procured an ordinary large iron wash kettle, put my "stuff" in a coffee sack (any old sack will do, provided it is not

too coarse), tied up my sack and put it into the kettle and put a good sized rock on top (a flat rock is the best). Now, nearly fill your kettle with water, and start it to boiling, but not too fast. Soon the wax with a great part of the dirt will begin to rise. Now, get an old tin bucket, or some milk pans will do. Skim off your wax as it rises. You will take out dirt as well, but that does not matter. Pour it into your bucket or a deep pan, and have your pans, or whatever it may be for the clean wax, ready by the time you have got another lot of wax and dirt ready to skim off. That in your bucket or pan will be nicely settled so that you can pour or skim off the wax and put it into whatever you have ready. Do not be particular in skimming it too close, for you can again throw the balance into the large kettle. For large quantities I use the largest kettle I can get. Keep plenty of fire under it, and use two or three buckets, and I am kept busy all the time, and I think it is the quickest and cheapest way yet.

Luling, Caldwell Co., Texas, Oct 3, '81.

For the Bee-Keepers' Instructor.]

Dark, Leather-Colored Bees, etc.

G. W. DEMAREE.

In the INSTRUCTOR of October Mr. J. Taylor calls attention to an article from the pen of Mr. Heddon on the subject of "Dark, Leather-Colored Italians," and asks the editor of the "Question Box" for his experience. I have seen the article alluded to, and am at a loss to know why Mr. Heddon should write just such an article unless he is "bound to write and has run short of material." On page 363 *American Bee Journal* he has delivered himself more fully on the subject than at any time, to my knowledge, heretofore. In regard to the Cyprian bees he makes the assertion that he "noticed that those who always import the genuine, and those who have purchased from them, agree that they sting through boots and all." I must repeat that this is a most extraordinary statement. I know of but two persons who claim to have imported the Cyprians from their native home in Cyprus to this country, and these two persons are Mr. D. A. Jones, of Canada, and Mr. Charles Dadant, of Illinois. The latter gentleman did not import his bees directly from the Island of Cyprus, but purchased them, if I am rightly informed, from J. Fiorina, who lives in Italy, and the bees came to Mr. Dadant from the

last named country. Mr. Jones, then, is the only importer of the "genuine" Cyprians to this country. The high standing of Mr. Frank Benton, as well as that of Mr. Jones, forbids the entertainment of a doubt as to the genuineness of the bees first imported by Mr. Jones, and I have yet to hear of that gentleman "agreeing" that the Cyprians "sting through boots and all," and this notwithstanding I have had the pleasure of meeting and talking with him on this and kindred subjects. I have reared and handled bees from a queen of Mr. Jones' first importation from Cyprus, and I find them as manageable as Mr. Heddon's "coming bee," viz: "The best Italians and blacks more or less crossed." By the way, I am gratified that the naughty hybrid has at last found so able a champion as Mr. Heddon to defend their cause. We do not object to this, provided he will stick to them a little closer and a little longer than he stuck to his "bacteria" and other theories, and will cease to call them "pure Italians." The Italian bee has already been sufficiently slandered. Of all the bees under the sun it would appear that they can claim the most wonderful multiplicity of kinfolk of all colors and shapes. There are the golden Italians, yellow Italians, light Italians, dark Italians, leather-colored Italians, and now Mr. Heddon has discovered the "Long, Leather-Colored Italians," and of course by parity of reasoning there must of necessity be a short, leather-colored Italian. Italy must be a most wonderful prolific country for bees, or else the poor Italian is the worst slandered bee on the face of the earth. Touching the bees of Italy, it has been abundantly proven that they are not a pure blood or race of bees. But in the absence of all direct testimony the intelligent breeder cannot fail to arrive at the same conclusion. Who, that has bred the Italian bee by careful selection, has failed to see individual bees among them as black as jet, with sleek, glossy bodies unlike any race of bees he ever saw. And again, bees as yellow as the finest Italian queens, with jet black tips. From whence comes these out-croppings if not from taint of blood. I have seen a jet black lamb following a white ewe in a flock of white sheep. Now, any ten year old farmer boy can tell you the cause of this. It was a taint of black blood in the veins of one or both of the parents, and the black lamb was the out-cropping of the taint of blood. These facts are well understood by stock breeders. They are common occurrences, and no intelligent person has ever called them in question. But in

bee culture we are asked to reverse the rule to suit the pockets of "those who always import the genuine," and sell none but "pure bees." My experience as a breeder of selected bees has led me to the conclusion that there is somewhere on the earth, if not wholly absorbed in making up the several mixed races of bees, a pure yellow bee without the stripes or bands. And also a pure black bee with a smooth, hairless, glossy exterior. This is not mere theory, as some will be ready to say it is. It is a fair hypothesis, well sustained by the above mentioned out-croppings. I do not object to hybrid bees. My experience is, that the first cross between the purest yellow bees and the common blacks are excellent honey gatherers. But they are unfit to breed from. What I object to, is the selling of hybrids under the name of dark or leather-colored Italians, for breeding purposes. If we would have the last named type of bees in all their freshness and vigor, we must obtain them by breeding from the purest stock that can be had, to make up the desired cross.

If fertilization in confinement is ever made a practical success, as I have increased hopes that it will, it will be possible to demonstrate many facts which must remain theories till then.

Christiansburg, Ky., Dec. 3, 1881.

For the Bee-Keepers' Instructor.

A Short Sketch of Our Apiary. No. 2.

JESSIE MILLER.

We gave each young swarm three or four frames of comb, containing some honey; filled the lower part of the hive with wired foundation, except a frame of 8 1-pound sections at each side. Thus each hive had 7 frames of comb, or foundation, and 2 of sections. Most of the young swarms were taken to the hive provided for them within an hour after being hived; were all satisfied, and went to work at once, queen and all. The combs were those taken last fall, when preparing for wintering, and in the spring, when preparing for spreading brood. We gave some of the first swarms sections above a week after being hived.

The early part of the season was too cold; later it was dry and hot. Results: First young swarm was sold, hive included, for \$10; the 2d for \$12; extracted 60 lbs. from a part of the hives only—could have got more, but began too late, and extracted but once. Moved a part of

broad frames, with sections, from side to second story when about half-filled, as advised by Doolittle, placing new ones at the sides. A part of sections had starters only. Used A. I. Root's heavy foundation, and that one and two years old, and so hard and dry bees were slow to use it. Thin new was used in a part of the sections. Some had starters only, others were from one-third to three-quarters filled. Used 1 and 2 lb. section boxes. Got nearly 30 lbs. of honey in these, nicely capped, and a great number of others, sections partly filled and capped on one side. Others had combs partly filled and capped on one side; others had combs partly drawn out, incomplete and unsalable.

Moving sections from side to top checked work. The bees were not as well satisfied to work above as at the sides. This may have been caused by the poor honey season. In some cases the honey was taken from the unfinished sections to the frames below. Now all appear to be in good trim for winter, with honey enough.

The queens are doing well. No. 4 has been supplied with a fine queen from H. Alley, is well-filled with brood and young bees, and promises well.

As to experience, we think some things have been learned. Spread the brood carefully, and you will have good results, we believe. We want new, thin foundation, and the sections nearly filled. It will pay best. When bees leave the old, dry, heavy starter, and take the thin, new foundation in the same case, every time it is a *straw*.

As to side storing, we are not satisfied; want to try it again; but inclined to believe sections above the best, and remove each as soon as capped.

We like the plan of giving each young swarm a few frames of comb; they go to work at once, in earnest. The queen gets to business early. We advise all to save the combs; bees will clean them up so nice and quick it will surprise a novice.

In some things we failed. We did not prevent swarming; could not get bees to work in sections, strong. They work better in the 2 lb. than 1 lb. sections. We just now learn that thousands of bees are being scalded at the canning works here; that colonies are being reduced thereby to a minimum strength, and will need watching to keep them. Another season we hope to know better *what* to do, *when* to do, and *how* to do.

No, Mr. Editor, we did not kill the queen in No. 4 (see criticism, page 519),

as you judge. She remained long enough to show that she was not purely mated. Where or when she went, we never knew. Now we must prepare for wintering.

THE REAL VALUE OF GOOD BEES, ETC.

G. W. House wants to know (see page 515) why I did not tell what the *real value* of good bees is, &c.

No, my dear sir, I did not wish to prejudice your sale. Do you offer five or ten average colonies at \$4.50 each? If so, and my advice was asked, I would say, they are cheap. Look no further; buy of him. But if the buyer must take the entire one hundred colonies, it might be no inducement to many who want to buy only a few. To most of us they would not be in the market. Our *apiary* consists of eight colonies, now, we think, in good trim for wintering, but on summer stands. Worth what? \$100, or a part at same rate. Cost how much? There it is; can't tell exactly, as I don't know. Let us see. Paid A. I. Root \$13 for 1 colony of Italians, in Simplicity hive; 1 colony of blacks, in American hive, bought here, \$8; 1 colony of Italians, young, without hive, \$6. The others are increase. Now the blacks have an Italian queen. Friend House, did I pay high? Here Italians bring \$6, bees only. At this season, or in spring, with hive and stores in brood chamber, \$12 to \$15 is the usual price, kind of hive and amount of stores governing somewhat.

I could do better to buy of friend House now.

When bee-keepers, like Root, Newman, Oatman & Sons, King & Co., Riegel & Drum, and scores of others sell bees for \$8 to \$15 per colony, an offer to sell as good for \$4.50, in good hives and prime order, is a "boom" not often met with. The best is the cheapest, and friend H. must be offering a great bargain. Wish I could give him an order.

Alliance, O., Oct. 3, 1881.

For the Bee-Keepers' Instructor.]

Notes From "Sunny Side Apiary."

CHAS. H. LAKE.

Much has of late been written respecting *who* was first to introduce the Italian bee to this country, and several bee-keepers have requested me to respond, inasmuch as I am in possession of the apiary of the late Richard Colvin, to whom I have always given the honor. Recently I have had placed at my disposal a writ-

ing from the pen of the late gentleman, that I give for the benefit of those seeking information on the subject. I will quote but a portion, however, as the article is too lengthy to copy:

"The first attempt to introduce the Italian Honey Bee into the United States it is believed was made by Samuel Wagner and Edward Jessop, of York, Pa., in 1855, but in consequence of inadequate provisions for their safety on so long a voyage they perished before their arrival.

"In the winter of 1858 another attempt was made by Mr. Wagner, Rev. L. L. Langstroth and myself. The order was placed in the hands of the Surgeon of the Steamer (to whose charge the bees were to have been committed on the return voyage) with instructions to transmit it to Mr. Dzierzon on reaching Liverpool, but in consequence of his determining to leave the ship to engage in other service on his arrival at Bremen, it was not done, and this effort failed. Subsequently arrangements were made by which in the *latter part of that year we received seven living queens.*

"At the same time and on board the same steamer, Mr. P. J. Mahan, of Philadelphia, brought one or more queens, which were supposed to be of doubtful purity. Only two or three young queens were reared by us during that fall and winter, and in the following spring we found all our imported stock had perished. In conjunction with Mr. Wagner I determined to make another trial, and another order was immediately dispatched. The queens, however, did not arrive till the following June. Meantime, about the month of May Mr. S. B. Parsons, of Flushing, L. I., received an importation of them from the North part of Italy, some of the progeny of which he placed in the hands of Rev. L. L. Langstroth, W. W. Carry and M. Quinby and other skillful apiarians, who, with Mr. C. W. Rose, a subsequent importer, and perhaps some others, have bred and disseminated them pretty widely through our country.

"In consequence of severe illness during the spring of 1860, I was unable to accomplish much beyond rearing of some fifteen queens, which were impregnated with black drones. Aware that European breeders had found difficulty in breeding them pure, and learning that similar difficulties seemed to be encountered by those breeding them in this country, I determined, before disposing of any queens, to Italianize my entire apiary from the purest stock to be procured, and accordingly made subsequent importations from the most reliable sources, in-

cluding the vicinity of Lake Como. None, however, excelled if equaled these procured from Mr. Dzierzon, from whose stock my present Italian apiary has been bred."

From this it will clearly be seen to whom the honor is due. I have in my possession several caskets in which these bees were imported, and from translating the directions found on them I find one was shipped in May, 1859, the same being in Dr. Dzierzon's hand writing, and was doubtless the "casket" that contained the "seven living queens." Several other caskets, of peculiar construction, are also among the interesting collection of ancient bee-keeping, seen at the "Sunny Side Apiary."

Baltimore, Md., Dec. 7, 1881.

BEES AND HONEY.

Report for 1881.

L. C. ROOT & BRO.

In giving the results of our present season's operations, we desire to say, first, that such results could only be attained under very favorable circumstances. Such reports, without explanation, may easily lead the uninformed to engage in the business, expecting similar results at once. Bee-keeping, like all pursuits, must be made a study, and it can only become a success by close application.

We commenced in the spring, with 160 stocks, the most of them in good condition. As is generally known, the early spring was very unfavorable for all operations with bees. In fact, we have never, with one exception, seen a more discouraging outlook.

During fruit blossoms the weather was very favorable, and from that time forward everything was unusually so.

Our bees were located in four places, 40 colonies in each. One apiary seven miles north of us, one four miles south and one seven miles southeast. Upon this point of locating bees, the number of stocks that should be kept in one place, &c., an entire article might be prepared. By the adding of combs at proper times and by thorough attention, our stocks became extremely populous.

If space would allow, we might consider a question at this time which is of extreme importance to every bee-keeper, namely that of increase of swarms. We will simply say that, with us, there have been two seasons during the past ten

years when our stock might have been doubled, and at the same time more surplus been secured, than to hold all of the force to the original stocks. With the uncertainty of a continued yield of honey, we find that we must be in readiness to secure honey rapidly during any short period it may be afforded. Our conclusion is that, for our location, very moderate, if any, increase of swarms is preferable. We have, therefore, made no increase. When extracted honey is secured, swarming is easily controlled. We do not advise the entire prevention of increase in stocks for the average bee-keeper. Probably most beginners will succeed best with a moderate increase, but we advise that it be limited to, at most, one swarm from each good stock, even in best seasons.

Let us say that the combs we had packed away, which contained the late gathered honey of the fall previous, proved of great value. A nice comb, containing three to five pounds of honey, with the cappings broken by rubbing a knife over it, and then placed in the center of a strong hive, would be rapidly emptied, when the cells would be readily occupied by the queen.

The first of June clover and raspberries afforded honey bountifully. In fact, we have never known clover to yield so much honey.

We extracted our first honey to any extent June 28. We will give the results of our best apiary:

June 28,	1,500	pounds.
July 9,	2,575	"
July 16,	2,000	"
July 25, 26,	3,140	"
Late honey,	512	"

Total 9,727

From one stock of best Italian bees at our honey apiary, we took as follows:

June 25,	96	pounds.
July 4,	62½	"
July 8,	114	"
July 12,	66	"
July 19,	40½	"
July 22,	36	"
Aug. 5,	42	"
Aug. 27,	27	"

Total 484

June 26, this hive gathered over 20 pounds during the day. July 10 the hive was weighed at intervals during the day, showing results as follows:

At 1 p. m. it weighed	155	pounds,
" 4 "	160	"
" 5 "	163	"
" 6 "	166	"
" 7 "	171½	"

Our entire yield from the four apiaries was 32,809 pounds. With one machine we took in one day 2,760 pounds. This we believe to be the largest amount of honey ever taken in one day with one machine. Our fall yield of honey was almost entirely cut off by the extreme drouth.

We have never secured a finer quality of honey than during the present season. Our bees, as well as bees in general, go into winter quarters in very good condition. The 17th of November they had a free flight. We placed them in winter quarters the 21st and 22d of November, which practically closes the season of 1881.

We give this report to induce a more thorough examination of the best methods of bee-keeping. The advantages for so doing may be found on every hand. Besides the bee journals devoted exclusively to this interest, every agricultural paper of note in the land has its bee-keeping department, making clear the various operations of advanced bee culture.

It is a matter of great surprise to us that with these opportunities which may be so easily taken advantage of, so many may be found who are yet contented to keep bees in box hives and in the old way.

Mohawk, N. Y., Nov. 25, 1881.

For the Bee-Keepers' Instructor.]

Our Method of Obtaining Surplus Honey.

F. L. WRIGHT.

Several persons have lately inquired how we obtain such a large yield of surplus honey, and as the Q. B. is full, we will endeavor to tell our friends how we succeed, and call it one of those articles we promised you.

In the first place we have a good location. Spring opens with willows, maples, etc., and as fruit growing is a part of our business, we have large orchards, as also have our neighbors. Next comes hundreds of acres of white and alsike clover, thousands of basswoods, and the second crop of red clover fills the gap between them and buckwheat; and last of all comes fall flowers, in abundance.

We are satisfied that we could do much better could we spare the time from our other business to give them the attention they deserve. We use the Gallup frame, except in chaff hives, and our brood chamber is quite small. As early in the spring as possible we examine every stock, and select the best and heaviest swarms to store surplus honey, while the lighter ones are used for nuclei, etc.

They are at once fed up, either by giving frames of sealed honey, left over, or by feeding dark extracted honey, or sugar syrup (with the feeder described in the Sept. No. K. B. K., also copied in Oct. No. Exchange), so that by the time fruit blooms the hives will be full of honey and brood.

We always manage to have a lot of partly filled sections every fall. The honey is extracted, and they are saved and a case of them put on just as fruit begins to bloom. It may be well to say here that we use a case similar to the one A. I. Root uses on his story-and-a-half hive, only the strips upon which the sections rest are tin, instead of wood.

As soon as they get well at work in this case it is raised, and another, containing boxes filled with full sheets of thin foundation inserted between that and the brood nest. If they fill both before capping any, we sometimes raise and insert another, but generally take off one, bees and all, and give to a stock that is backward about going into the boxes. We have, before now, when we were short of empty combs, taken four sections, and placing them into wide frames, hung in the center of a queenless colony, or on one side of a strong normal colony, until they had the work well under way, and then put in the cases, but we find our time too valuable to do very much "fussing." The great secret is, keep all stocks strong, give small brood chamber, have a good location, not overstocked, and give them, at all times, plenty of room in the surplus department. If you will heed this advice, you will be successful, we will guarantee.

Plainfield, Mich., Nov. 1, 1881.

Read before the National Convention.]

Dysentery in Bees, and its Causes.

WEBSTER THOMAS.

We have selected the above topic for a short essay, not because we feel that we are master of the subject, but for the reason that we hope to awaken thought, and perhaps be able to throw a little light upon this vexed question. The subject is certainly one of vital importance to every bee-keeper, and for this reason should be fully studied and well understood by all.

The great difficulty with most of us who write on this subject is to divest ourselves of preconceived notions and theories, being, as a general thing, inclined to

trace this trouble to some one particular cause. One traces it altogether to cold weather, another thinks it entirely due to long confinement, and a third to bad food, a fourth to over-vegetable matter in the honey, or infinitesimal animalculæ, called bacteria, while a fifth, of equal experience, claims that it is altogether due to excitement, but that long confinement, cold weather, bad food, etc., have nothing to do with bringing on the disease. Now, all of these cannot be right, and yet perhaps few of them are altogether wrong.

We start with the proposition that indigestion is the cause of dysentery, and that any cause that will produce indigestion will bring about this disease. As in the human system, so in insect life, if the food is too strong for the stomach, or is taken in quantities beyond what nature requires, the result is an undue tax on the digestive functions. The organs of the bee are adapted to certain kinds of food, under certain conditions, and in certain quantities, and any radical or excessive departure from the true normal conditions is sure to bring about trouble.

Pure, wholesome honey is at all times and seasons the natural food for the bee, but there may be causes, as we will try to show further on, when this is taken in such quantities as to bring on indigestion, or dysentery. The same cannot be said of pollen, for while pollen is indispensable to the development and growth of the young bee, the same is not true of the bee in its mature state, especially when long confined to its winter quarters without a fly. An excess of pollen and a lack of good honey under such circumstances we believe to be a fruitful source of this dread disease. In such cases the bee becomes overburdened with a food that is too strong for its digestion in its confined condition, and the result is dysentery. The same may be said of any kind of bad food, such as the juices of fruit, sour, uncapped honey, or bad, unwholesome honey, such as is sometimes gathered late in the fall. Confinement under such circumstances, no doubt, has a very aggravating influence, the bees frequently becoming diseased, when, if they had an opportunity to fly, to void their feces, no evil would result to them. When the conditions of which we have spoken exist, there may be other causes of an aggravating character, such as excitement, brought about in any way by a disturbance of their normal condition. In a disturbed and excited condition they will gorge themselves, and unless their food is of the purest character, the re-

sults are sure to be evil. And even the purest honey, when under such circumstances taken greatly in excess, is sure to produce dysentery, if the bees are long confined without a fly.

And this brings us to consider the effect that cold has in bringing on this disease. We have already said that any undue excitement or disturbing cause has its evil results, and we know of no one cause that is of a more exciting nature to our little pets than that of excessive cold. Bees are inclined, in a moderate temperature, to pass into a semi-torpid, quiet condition, and as one writer says, "When in this state it is very easy to rouse them from it by gently shaking or tapping the hive. When this is done in winter the bees wake up, so to speak, become excited, and soon, by the rapidity of their respirations, raise the temperature of the hive to a great height." The same writer, speaking of the striking effect of the sudden disturbance of bees, says:

"On the morning of January 2, 1836, at a quarter past 7 o'clock, when there was a clear, intense frost, and the thermometer in the open air stood a little above 17°, and that in the hive marked a temperature of 30°, that is actually two degrees below the freezing point, the bees were roused by tapping on the hive, and in 16 minutes the mercury rose to 70°, or 53° above the external air."

As we have already remarked, bees, if left alone, quietly, in moderately cold weather, will pass into a partially torpid, or, as one writer says, "sleepy condition," from which, by a beautiful provision of nature, they are aroused by excessive cold, when, breathing with great energy, an amount of animal heat is soon produced that speedily raises the temperature of the hive. By actual experiment it has been shown that the temperature of the hive may, in a few minutes, by disturbing the bees, be increased over 50°.

Thus we see that severe cold is the most serious disturbing cause that the apiarist has to contend with, and it does, no doubt, at times, produce an undue amount of excitement. This excitement and the desire for food to keep up the requisite amount of animal heat, causes the bees to fill themselves to excess, and thus brings about an abnormal condition which finally results in dysentery. But the difficulty does not stop here, for if the bees are long exposed to excessive cold, their continued efforts to keep warm, and thereby preserve life, will soon destroy their vitality.

In reality there is, to our mind, no other cause so destructive to bee life as severe cold. It causes excessive feeding, requires a great waste of vital forces, and in this way the tendency is continually toward disease and death. There is still another trouble brought about by the disturbance of bees by excessive cold. In their efforts to keep up heat, their rapid breathing has a tendency to increase the humidity of the atmosphere in the hive, and this being heated and coming in contact with the cold from without, condensation takes place, and frost and ice, or dampness and mold takes place, thus rendering the hive, to a greater or less extent, unhealthy for the bees. Dysentery can frequently be traced to long continued dampness, caused by imperfect ventilation.

To sum up the matter, we believe there is always a tendency to disease, if from any cause, the bees are left long in an abnormal condition. Such a condition always has a tendency to enervate and destroy their vitality, while if the normal condition of plenty of good food, warmth and ventilation are observed, no trouble is likely to ensue from dysentery or any other disease. If we would avoid this dread disease, let us pay strict attention to these three vital points—plenty of good food, warmth and ventilation.

For the Bee-Keepers' Instructor.]

Review No. 6.

GEORGE W. HOUSE.

At the end of the fifth paragraph, page 551, I am made to say, "and all that is connected with the apiary." It should read, "and all that is connected with the colony."

In Mr. Mitchell's remarks on page 554, he seems to have forgotten what he said at the beginning of the second paragraph on page 485. Somebody has said something about "consistency being a jewel," etc.

Mr. M. says: "In answer to Mr. House's question, 'How do I know?' etc., I would ask him, how does he know to the contrary."

The reader will remember that we did not ask Mr. M. the above question. The question was simply referred to him for his earnest thought, hoping it might prove a lesson to him in the future. But Mr. M., in school-boy fashion and by misapprehension of facts, retaliates by asking some questions. Unlike Mr. M.

we are always ready to answer all questions to the best of our ability. Therefore we trust Mr. J. will take no exceptions to our answering the question. My answer is this: When we read such an article as appears on page 1, *A. B. J.*, Vol. XVII, No. 11, entitled, "Foul Brood and its Causes," by Mr. H. L. Jeffrey, we know that he is not "one of the best informed apiarists in the country," and further, we will say that *anyone* advocating such a theory at this late day, is not even a *practical bee-keeper*.

In reply to Mr. M.'s next question we beg to say that while we do not claim that *all* we have said are facts, yet we *do* claim that we can substantiate anything we have given as *facts*, while anything given as our opinion and belief, is based upon conclusions derived from actual experience. Next, Mr. M. asks us to substantiate one assertion at least. The next paragraph we take from Mr. M.'s article:

"I refer to the first page of the July INSTRUCTOR. He says: 'If bad food is the cause why did not our bees suffer from dysentery fifteen years ago?' This leads us to the supposition that dysentery was unheard of prior to that time. In his next paragraph he says: 'We can trace this cause to the shade of trees.' I will put his own question to him here: Why did not our bees suffer from dysentery fifteen years ago, if shade produces it? Was there no shade then?"

We had supposed Mr. M. was *inclined* to be honest in his convictions and *disposed* to act squarely and honorably with *written* statements at least. But alas! This last attempt will convince the attentive reader that such is not the case, while we are now forced to believe that he is incompetent to occupy the position he has taken in this case, much less that of his exaggerated position in passing judgement and proclaiming to the world who are the most scientific apiarists, etc.

While we are willing to answer any civil question asked us, we *do not* propose to entertain any such questions when we are *willfully* misrepresented. We respectfully refer the reader to our criticisms in July INSTRUCTOR, and the above paragraph from Mr. M.'s article, and then we ask if Mr. Mitchell has done bee-keepers a service by misrepresenting facts? I would suggest that he pay more attention to "facts" and not indulge so much in flights of "fancy."

On page 555 Friend Moon says: "Now, Friend House, we are going to be plain, and will put a few question to you to digest. First, do you believe that there is an Italian queen in existence that will

duplicate herself every time in color, any nearer than the 'Anglo Saxon' race? Second, do you believe that Friend Alley has such a queen? and Third, do you believe that he would say to the world that he had, and could not prove it?"

We do not understand why Mr. M. takes us to task on this question. According to his own admissions he was attacked in another journal some time ago, to which Mr. Alley made a reply. We have followed the various discussions on this topic, and cannot help thinking but what Friend Moon possesses fanatic notions in regard to this question.

He has laid great stress on an assertion we made a short time ago in the INSTRUCTOR to the effect that Mr. A. was acknowledged by many of the very best apiarists in this country to be the best queen breeder in the world, and it makes *no difference whom it pleases*. We candidly believe the assertion to be true and based upon authority.

It was not our desire to be mixed up in this controversy, but as direct questions have been asked, we do not feel as though we can shirk answering them. In doing so, however, we will endeavor to answer them directly and in as few words as possible, hoping this will end the question as far as we are concerned. Our answers are as follows: First, yes. Second, I believe he has had such queens. Third, no. These questions are answered in accordance with our own experience with queens from Mr. A.

We were *not* aware, Friend Moon, that *honest* breeders condemn his conduct, and cry humbuggery! and as you say, "you call it big humbuggery, and further, don't propose to let such things pass unnoticed, especially when you are assailed." Friend M., we do not swallow that dose. You certainly cannot make that charge stick on us. When you cried "humbuggery!" we simply asked (for information) what that "humbuggery" consisted of, that the readers of the INSTRUCTOR might be benefitted thereby, and the accused allowed a chance for defence, etc.

If you will please tell us where we have dodged the corners, Friend Moon, we will (as you say) follow you until this humbuggery is wiped out. According to your admissions the bee-keeping fraternity do not estimate you and your business as highly as we had supposed, and as you further say, Mr. A. probably raises fifty queens, if not one hundred, to your one. As you do not wish us to class you as a rival breeder, we hasten to make the *amende* honorable, by admitting that our estimation of you and yours was largely

overrated. Our estimation, however, was based upon conclusions drawn from your writings and advertising, from which we *did* believe that you were actually a rival breeder, etc. But as you have told us differently, we have no reason to doubt your assertion, and for your benefit we again say: "Make haste slowly."

In the case of fertile workers, referred to by Friend Flanigan on page 553, I think upon closer observation he will find that one of the first cells he gave the colony hatched, and at the proper time commenced laying, while the imperfect queen in the other hive referred to no doubt undertook her wedding flight and was lost. If this is not the case, then there is a shroud of mystery about it we cannot explain.

In regard to the National Convention. We wish to speak of the manner of electing officers. We think it in bad taste, and that it has too much the odium of ringism about it to be even palatable. Every member *should* have the privilege of a free ballot. No gag law.

When that society was organized, the constitution and by-laws were in accordance with American custom and principles. It was organized with the intention of holding its sessions North, South, East and West. But during the past few years there is seemingly little or no regard paid to custom and privileges.

Much was said by certain persons about the resolutions passed at the North-Eastern Convention less than two years ago. Yet where is the earnest and honest thinking bee-keeper, that has the best interests of the fraternity at heart, that will not admit that those resolutions have been the means of doing *more real good* than any similar action in the American apicultural history.

But where is the honest apiarist that can truthfully say the same in regard to the action taken by the last National Convention. I refer directly to the address of Mr. T. F. Bingham, entitled "A Partial Review," and the action taken by the Convention concerning it.

While I wish it distinctly understood that I fully appreciate the noble and earnest work put forth by the illustrious Rev. L. L. Langstroth in his inventions, improvements and writings, and while I am to-day in full sympathy with his conditions, etc., yet I claim that that "body" has caused to be placed upon its record a stain, never to be blotted out. Yes; not only a stain, but they have perpetrated the greatest outrage ever recorded in the history of American apiculture. We refer to the attempt to "lionize" a few at

the expense of others, and still they proclaim: "Honor to whom honor is due." Was there ever a Quinby? or a Wagner?

Fellow apiarists, when I read that address and the action taken upon it, it makes the very blood chill, as it courses through my veins. O! *where* is the true American apiarist that can digest that action and withhold the emotions caused by honest inward feelings? Does it not bring you face to face with the discoveries, the inventions, the practical teachings, the benevolence and the immortal fame of our beloved and lamented M. Quinby, the father of American apiculture?

As Friend Hetherington has truthfully said, "Thousands are to-day enjoying a delicious and wholesome article of food that would have remained ungathered, except for his earnest advocacy of the business as a source of revenue to the Nation, and profit to the bee-keeper," and thousands of bee-keepers will blush with shame to think of the injustice done him at Lexington, Ky.

Gentlemen of the North American Society; you that were participants of that farce; can *you*, upon taking a sober, second thought, say to your fellow apiarists that your considerations were fairly and impartially rendered, with justice indiscreptible?

Allow me to quote from Mr. Bingham's address. He says: "The system I have denominated the American, is the substitution of absolute control, for the 'happy-go-lucky' methods previously pursued. The early writings of the lamented M. Quinby, called the 'Mysteries of Bee-Keeping,' which were among the most conspicuous of the closing era, may be appropriately called its closing chapters; while the writings of the Rev. L. L. Langstroth, and the invention of the movable comb hive, may be justly called the opening chapter in improved bee culture, and the foundation of the American system."

Reader, pause, and ponder well, lest you render an unjust decision. Where is the intelligent bee-keeper that can endorse this taking from one and giving to another? I for *one* am willing to go on record as denouncing this heinous offense. The sun may cease to give us light. The diurnal revolution of the earth may stop. But *never* will the bee-keepers of America submit to such an unjust discrimination.

But further on Mr. Bingham says: "Is it of any value to bee-keepers of to-day, or the bee-keepers of the future, that the memory of the inventor of the movable comb bee hive, and the honey extractor, and comb foundation, should be revered and perpetuated?"

O! Father of the Heavens! Is this "Honor to whom honor is due?" Is there no "Frederick Weiss?" Can it be there was never a "Herr Heuschka?" Brother apiarists, shall we submit to such an injustice? No, *never*! But we *appeal* from the action of that body to the apiarists of the world, remembering that "Truth crushed to earth shall rise again."

I wish to call the reader's attention to the last three paragraphs of that address as published in the *A. B. J.*, page 335. Can you not discover the shadowings of the "Patented Smoker?" Can you fail to notice the plea for protection to that implement? and the attempt to wrest *that* invention from its real inventor? Every one of common sense knows that if he had a valid patent, infringements could be abolished by lawful proceedings. Perhaps they will be, for we read that we must use no other, if we wish to be exempt from prosecution in using them. This may have its effect with the ignorant, but we don't believe, at this enlightened age, that "bull-dozing" will work.

Notwithstanding all this, the North American Society in convention assembled at Lexington, Ky., and the 7th day of October, 1881, did there and then cause to be recorded the following motion, which, according to the minutes, was passed with great unanimity:

"Moved, that the sentiments expressed by Mr. Bingham be endorsed as the views of this Convention."

Verily, verily, if such a course is allowed to obtain without notice, our National Association will surely die, a disgrace to American apiculture.

Fayetteville, N. Y., Dec. 12, 1881.

Read before the National Convention.]

Bee-Keeping as a Means of Support.

W. J. DAVIS.

For ages the honey bee has been the servant of man, yielding the product of its labors for his use and pleasure. Until about the middle of the present century, the home of the bee was the abode of mystery, and whether that home was constructed of straw, clay, or wood, around it gathered superstitions thick and strong. The discoveries of Dr. Dzierzon, of Germany, and our own honored Rev. Langstroth, have solved the mysteries and dispelled superstitions, so that the apiarist of to-day may know with certainty just the condition of his colonies at all times, and generally be able to correct all that is wrong.

In 1846 bee-keeping in Germany was declared to be of no importance in rural economy. From 1850 to 1855 the staid old Germans began to open their eyes at the announcement that Dr. Dzierzon realized a profit of from 30 to 50 per cent. on the capital invested. And now, in our own country, from 100 to 500 per cent. on the amount invested is not an uncommon yield. The use of honey and wax extractors, and the manufacture and use of comb foundation, the importation and improvement of the Italian bee, are all things of the immediate past.

From the light of the past and present, we ask, what is the prospect of bee-keeping as a business, or the sole vocation of an individual? The first question to be decided is, "will it pay?" This must be determined by "the man and the location." It is not the province of this essay to speak of the wealthy amateur, or the scientist, who keeps bees alone for the pleasure or knowledge derived, nor yet of the farmer or mechanic, who keeps a few colonies simply to supply his own table with choice dishes of honey, but as a source of revenue. Neither will I take the liberty to arraign the honey producers of the United States and Canada, who have made bee-keeping a financial success. But to the young man, about starting in business for himself, we will say that bee-keeping presents brighter prospects of success than it has in the past.

Scientific bee-keeping, as a business, is both a profession and a trade. It pays no special homage to any of the learned professions. The apiarist deals with and studies the great forces of nature. He sees, in a marked degree, the importance of the early and the later rain, and the bright, warm sunshine at particular times, hence becomes a climatologist; of necessity he takes up the sciences. He studies into the intricacies of animal life. He becomes, in time, a botanist. Philosophy is brought into use in the proper ventilation of his hives, and in the construction of winter repositories. He observes the difference in soils for the yield of nectar from a particular bloom, and the effect of altitude in the quality, as well as quantity of honey secured.

To engage in bee-keeping as a business, it is necessary to understand the nature and wants of the honey bee, and a knowledge of their management. This may be obtained, in theory, by a study (not merely reading) of all the standard works extant, and journals devoted to the science of bee culture. Add to this the practical use of the knowledge ob-

tained in some large apiary for a year or two, if possible, and then you will be prepared to look for a location (as the young M. D. would say), "Do not try to build up by crowding out some one already established; there is room enough for all the bee-keepers of the United States for some time to come."

If surplus honey be the object sought, get the very best unoccupied field, if possible, where soft maple, red raspberry, white clover and basswood abound, without special reference to railroad facilities. If the rearing and sale of superior colonies and queens be the object in view, mail and railroad facilities are very important.

Thus armed and equipped as the law directs, a few hundred dollars may be invested in bees, with a better prospect of satisfactory returns, than an equal amount in almost any other direction. One hundred dollars invested in an old horse is thought to be a small matter, but one hundred dollars invested in one purchase of bees, would be thought, by some, to be extravagant. The horse may turn his heels to the sun on five minutes notice, and his late owner, if very saving, might estimate the value of shoes and hide; but the man who invests one hundred dollars in bees, is expected to become a "bloated bondholder" in three or four years, or "bees are no good."

It is true we are, like the farmer, met by unfavorable seasons. Drouth, or excessive rains sometimes blast the hopes of the apiarist. In this locality (N. W. Penn.), in the summer of 1871, during the blooming of white clover in June, the weather was cold, dry and windy. But little honey was secreted by the flowers under such circumstances, and the entire summer proved alike honeyless, and in early autumn I reduced my apiary from 130 to 50 colonies, in order to put them on a safe winter footing. A few were doubled, but I killed and buried bushels of bees, saving their combs, clean and nice, for further use. A similar state of things has occurred three or four times in my experience of 35 years, but let us see how other persons are sometimes effected in seasons of frost and drouth. I have known dairymen to sell good cows at \$5.00 each, on account of the prospective scarcity of hay. It will be readily seen that farmers suffer even heavier losses than the bee-keeper by unfavorable seasons.

Any person possessed of conscientious qualms against the killing of one, or many colonies of bees in autumn or unpropitious honey seasons, had better

never engage in bee-keeping as a business. The keeping or killing must be altogether a matter of dollars and cents. If, in 100 colonies in the fall, there be only sufficient stores for the safe wintering of 50, it is a question, which will pay better, reduce the number to 50, or purchase food for 100. It will depend much on circumstances, and the market value of the colonies in the spring. My own experience leads me to the belief that in a large majority of cases, it pays best to reduce the number of colonies, the hives and nice, clean combs being worth, in the spring, nearly as much in the hands of the skilled apiarist, as colonies will sell for. The heavy losses sustained last winter are discouraging, it is true. It is also true that such losses are more speedily regained than with any other stock. While absolute safety in the possession of property is not the inheritance of man, the bee-keeper may feel quite as secure as those engaged in any other industrial pursuit.

Youngsville, Pa.

Editor's Corner.

Doolittle's Bee-Keepers' Club List and Circular of Bees and Supplies, for 1882, has just been received by us. It contains 16 large pages—including cover—and will be found very readable.

Friend Kepler, of Napoleon, O., in the INSTRUCTOR for last June, promised to give us an article on sweet clover some time in the future. As spring will soon be here, and many persons will be wishing to plant for honey, we would suggest that no time would be better than the present for the article.

"Bury Me Near the Old Home," is the title of a new song and chorus by Will H. Thompson, just received at this office. We have heard the piece sung, and can recommend it as very pretty—much above the average of such songs. Price, 35 cents. Published by Will H. Thompson & Co., East Liverpool, Ohio.

The prospect is for a mild winter, and so far as we know, bees are doing well. Our's, although moved from Ohio in Oc-

tober, are getting along finely. Everything is promising for the apiarist, and we hope you will at once send on your subscriptions to the INSTRUCTOR, as you cannot make the excuse that you expect to lose all your bees.

Vick's Floral Guide, for 1882, is laying before us, and it is certainly a gem in its way. It contains two colored plates, and is illustrated, in addition, by hundreds of fine engravings of every variety of vegetables, flowers, etc. It is sent, postpaid, to any address, on receipt of 10c., and we can guarantee satisfaction to any one who sends for it, or for any of Mr. Vick's seeds, as we know, from personal experience, that they are just as represented. Address James Vick, Rochester, N. Y.

MONTHLY MANAGEMENT.

Continue the management as set forth in the November INSTRUCTOR. But little can or ought to be done with bees at this season of the year. The apiarist need not, however, be idle, as now is a good time to prepare for the next season's work. The long winter evenings will enable all, if they are so disposed, to study the bee business thoroughly. Read up on the standard works, and study well the bee journals of the day, and with the practical good sense that bee-keepers should possess you cannot fail to be successful.

In this number we publish the report of the past season's operations of L. C. Root & Bro., which they kindly sent us. It will be seen that their total production of honey was 32,809 pounds, which, divided by 160 (their number of colonies in the spring), would give an average production per colony of $204\frac{1}{2}$ pounds, and a fraction over. This is a little over 20 pounds per colony less than we stated last month, but even this is an extraordinary yield, and shows what may be done by the observing and wide-awake apiarist, by taking advantage of every favorable circumstance, and bringing brain-work to bear on the subject. "Quinby's

New Bee-Keeping," by L. C. Root, embracing the results of his observations and experience, will be found advertised by them in this issue, and we can heartily recommend it to those wanting a good work on bee-culture, as fully the peer, if not the superior, of any work on the subject published in the English language.

As the INSTRUCTOR is the only bee paper, so far as we know, published in any of the Southern States, we hope a special interest will be taken in this section of the country, as well as farther North, to support it in a spirit of liberality. Every man or woman who has even a colony or two of bees, should make it a point to take some good bee paper, and we feel safe in saying that for the small sum of fifty cents you will find no better one than the INSTRUCTOR. We especially appeal to the apiarists of Kentucky to stand by their home journal. It is our earnest desire to greatly enlarge the INSTRUCTOR as soon as we possibly can, and to do this we need your material aid and encouragement in helping us to extend our circulation.

A MERRY CHRISTMAS AND A HAPPY NEW YEAR TO ALL.

By the time this number of the INSTRUCTOR reaches its readers the merry Christmas bells will be ringing out their glad refrain, and ere another number is issued the year 1881 will be numbered with the things of the past. We extend our congratulations to all, and wish you "A Merry Christmas and a Happy New Year," and hope that the coming year may be fraught with unbounded joy and happiness to all of our readers, and that it may be more fruitful of good results, and be marked with greater advancement in apicultural science, than any which has preceded it. While the past year has not been all that some of us desired or expected, yet taking the whole country over apiarists have little cause to complain. We believe that bee-keeping to-day stands upon a surer foundation than ever before. It has emerged in a few years

from a comparatively small industry to one that is National in its character, and yet we may say that it is now only in its infancy. When the thousands of acres, of blossoms whose nectar is now "wasting its sweetness on the desert air" shall have been utilized, and America produces thousands of pounds where she now produces hundreds, apiarists will begin to realize the vastness of their industry, which will then receive that recognition at the hands of the Government which its importance deserves.

A WORD TO OUR READERS.

This number closes the volume for 1881, and we wish to say a few words in reference to the future. First, however, we desire to return our thanks to all who have stood by us in the past, and especially to our able corps of correspondents. We have as our readers are aware, given more original and instructive reading matter than any other bee journal for the same amount of money, and it shall be our aim in the future to improve on the past and make the INSTRUCTOR better and better as it grows older. To do this we need your encouragement in the way of communicating to us all that you may learn that will advance the science, and especially do we need your help in a *substantial* way, as subscribers to our magazine. Subscriptions are already coming in for the year 1882, and we hope by the issue of our January number to be able to report a largely increased subscription list. We hope that our old subscribers will do all they can in the way of getting subscribers for the INSTRUCTOR for the ensuing year. For a club of four with \$1.50 enclosed we will send the INSTRUCTOR for one year to separate addresses if so desired. This will enable the canvasser to get the INSTRUCTOR free of cost, save the little trouble it may be to speak to your neighbors in reference to the matter. There is scarcely a neighborhood to which our journal is sent but what a list of several subscribers might be obtained with but little trouble. A *little*

interest taken by each one of our subscribers would greatly benefit us, and would at the same time enable us to still further improve our journal. Let all who desire extra copies for canvassing write to us at once that we may be prepared to meet the demand.

Our readers are invited to take particular note of this month's review, as it is largely devoted to the North American Bee-keepers' Convention, recently held at Lexington, Ky. We do not wonder at friend House becoming indignant at what *appeared* to be a spirit of partiality exhibited by the Convention; and yet we can hardly believe that there was any intention to slight or injure any one. It is true that certain persons were lionized, while others, perhaps fully as worthy of our confidence and gratitude, as apiarists, were passed by unnoticed. It could not be expected otherwise, though, where an address was as ingeniously woven in as was Mr. Bingham's. No one could fail to approve of all that he said in praise of Rev. Langstroth, however much they might have wished that some things had been left out of his address, or that he had given honor to others, where honor was equally due. So far as we are concerned, we have no word of fault to find with the action of the Convention, except that such a body, claiming to be national in its character, ought to be very careful in its action not to neglect any section of the country, or do anything likely to foster a spirit of rivalry or jealousy. We give friend House's criticism in full, because we think it better, if such a feeling is prevalent in any section of the country, that it should be generally known. We want to see harmony prevail, especially in our national councils, and believe that this is the general feeling of the bee-keeping fraternity.

The Old Stand-by.

The Northeastern Bee-keepers' Association will hold its Twelfth Annual Con-

vention in the Common Council Halls, at Utica, N. Y., on the 25th, 26th and 27th days of January, 1882.

The Executive Committee are determined to maintain the high standing and enviable reputation the Association has justly gained in the past, and propose to outdo all former efforts at the coming Convention. Business of vital importance will be brought before the Convention, that makes it the duty of every member and bee-keeper to attend. None can afford to stay at home. The meeting promises to be the largest and most interesting ever held in America. All are invited.

Essays and addresses are expected from J. E. Hetherington, P. H. Elwood, L. C. Root, James Heddon, Chas. Dadant, T. G. Newman, N. N. Betsinger, Dr. A. H. Marks and others, on the most interesting topics of the day.

Elegant and appropriate diplomas will be awarded to worthy competitors on essays, display of implements, comb foundation, honey extracts, bee-hives, smokers, boxes, crates, etc.; also for comb and extracted honey.

All are invited to send implements for competition, or exhibition. Articles sent to the Secretary will be disposed of, or returned, as the owner directs. It is desired that all articles forwarded have charges pre-paid, and the same as sold to purchasers.

Reduced rates of board at hotels.

DR. A. H. MARKS, Pres.

GEO. W. HOUSE, Sec.

Convention Directory.

1882.

Jan. 10—Cortland Union, at Cortland, N. Y. C. M. Bean, Sec., McGrawville, N. Y.

10—Eastern N. Y., at Central Bridge, N. Y. N. D. West, Sec., Middleburgh, N. Y.

11, 12—Nebraska State, at Ashland, Neb. Geo. M. Hawley, Sec., Lincoln, Neb.

17, 18—N. W. Ill. & S. W. Wis., at Freeport, Ill. Jonathan Stewart, Sec., Rock City, Ill.

17, 18—N. E. Wisconsin, at Berlin, Wis. T. E. Turner, Sec., protem.

24, 25—Indiana State, at Indianapolis, Ind.

25—North-Eastern, at Utica, N. Y. Geo. W. House, Sec., Fayetteville, N. Y.

April 11—Eastern Michigan, at Detroit, Mich. A. B. Weed, Sec., Detroit, Mich.

25—Texas State, at McKinney, Tex. Wm. R. Howard, Sec.

26, 27—Western Michigan, at Grand Rapids. Wm. M. S. Dodge, Sec., Coopersville, Mich.

May 25—Iowa Central, at Winterset, Iowa. Henry Wallace, Sec.

[Secretaries of bee associations are specially requested to send us notices of meetings and full reports, so far as they may be able to do so, as we desire to publish the proceedings of these meetings whenever our space will admit of it.—Ed.]

Honey and Beeswax Markets.

REPORTED FOR THE INSTRUCTOR.

Chicago, Dec. 13.

Honey—Market active and prices strong, with out material change from last month. White clover in 1 to 2-lb. sections, 20 to 22c. Dark, 16 to 19c. Extracted, 9 to 10c., and no over stock.

Beeswax—18 to 22c. R. A. BURNETT.

St. Louis, Dec. 14.

Honey—Offerings are more plentiful, and unseasonable weather (very warm and rainy the past few days) caused some depression of values. Comb, 18 to 22c. Strained and extracted, 9 to 11c., to 12½c. Highest figures obtained only for choice in a small way.

Beeswax—19 to 20c. R. C. GREER & CO.

Cincinnati, Dec. 15.

Honey—Comb honey is in good supply, with a slow demand. It brings 18c. on arrival for best. Demand for extracted honey in our market is very good, and supply fair. It brings 8 to 11c. on arrival.

Beeswax—18 to 22c. C. F. MUTH.

Cleveland, O., Dec. 15.

Honey—Comb has been a little slow for a week or two, but price unchanged. Best white is selling 22c. per 1-lb. and 21c. per 2-lb. Dark honey, 18 to 19c. Extracted, 11 to 12c.

Beeswax—22 to 25c. A. C. KENDAL.

Baltimore, Dec. 7.

Honey—Comb, prime, 16 to 20c.; in good demand in 1-lb. sections at 20c. Extracted and strained, light, 10c.; extracted and strained, dark, 6 to 10c. I have recently sold several small lots of prime at 20c. on arrival.

C. H. LAKE.

Boston, Dec. 15.

Honey—In fair demand, 1-lb. comb being preferred at 22c.; 2-lb. comb, 20c.

Beeswax—25c. CROCKER & BLAKE.

New York, Dec. 16.

Honey—Best white in 2-lb. sections, 18 to 20c.; fair white in 2-lb. sections, 15 to 17c.; mixed and dark in 2-lb. sections, 11 to 13c.

Large boxes 2c. per lb. less than above prices. Extracted, white, 10c.; extracted, dark, 7 to 8c. Beeswax—Prime yellow, 23 to 24c.

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ITS LETTER DEPARTMENT

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Is conducted for the benefit of Beginners, or the Unskilled, where the most simple as well as intricate questions will be answered.

SELECTIONS.

A part of the third page is usually made up of Selections. In choosing them, we use our best judgement in selecting such articles as are thorough and substantial, some of which are very valuable in Scientific Knowledge.

An Interesting Feature

For the coming year will be our Successes and Failures in Wintering, given through twelve consecutive winters, by which will be seen the "Rises and Falls" through which the Bee-Keepers of the country passed during that time, and ourselves along with them, until a happier fate befell us.

THE BEE-KEEPERS' GUIDE

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QUINBY'S NEW BEE-KEEPING, by L. C. Root, is a handsomely illustrated book of plain, practical information for bee-keepers, very neatly and substantially bound. Its author follows apiculture as a business—being one of America's most successful honey producers—and is therefore thoroughly qualified from personal experience to impart that information to bee-keepers that is essential to their success. Cloth, \$1.50.

The A B C OF BEE CULTURE, by A. I. Root, embraces "everything pertaining to the care of the apiary," arranged in the handy cyclopedia form, and contains much useful information to both the novice in bee-keeping and the experienced. Cloth, \$1.25; paper, 75c.

THE BEE-KEEPERS' TEXT BOOK is one of the older works on bee culture. It has lately been re-written and revised by A. J. King, and is now fully up with the times. Cloth, \$1.00; paper, 75c.

BEE CULTURE; OR SUCCESSFUL MANAGEMENT OF THE APIARY, by T. G. Newman, presents in a condensed form instructions for the apiary's successful management. Published in English and German. Price for either edition, in paper, 40c. each; per dozen, \$3.00.

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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