



LIBRARIES

UNIVERSITY OF WISCONSIN-MADISON

Moon's bee world : a guide to bee-keepers. Vol 2, No 11 October, 1875

Rome, Georgia: A. F. Moon and Company, October, 1875

<https://digital.library.wisc.edu/1711.dl/T2TUHT6MSCEUW8j>

<http://rightsstatements.org/vocab/NKC/1.0/>

For information on re-use see:

<http://digital.library.wisc.edu/1711.dl/Copyright>

The libraries provide public access to a wide range of material, including online exhibits, digitized collections, archival finding aids, our catalog, online articles, and a growing range of materials in many media.

When possible, we provide rights information in catalog records, finding aids, and other metadata that accompanies collections or items. However, it is always the user's obligation to evaluate copyright and rights issues in light of their own use.

MOON'S BEE WORLD,

—A GUIDE TO—

BEE-KEEPERS.

VOLUME 2.

OCTOBER. 1875.

NUMBER 11

CORRESPONDENCE.

STANDARD FRAMES, &C.

S. M. H. BYRD.

EDITOR OF THE BEE WORLD:—You have long since found out that I am a slow correspondent, but bees and honey are only a side business with me, and I do not have time to write about them as often as I would like to do.

My bees are still doing very well, storing honey quite as fast during the past two weeks as at any time of this season. I do not know where they find it, except what they get from buckwheat. In neighborhoods around me where there is no buckwheat sown bees are bringing in honey very rapidly also. My hybrids have taken the lead as honey-gatherers this season. They are good fighters and good workers.

But I set down to write you about "Standard Frames." It would certainly be of great advantage to bee-

keepers if they could use a uniform frame for their brood chambers. After trying several sizes, I have come to the conclusion that a frame of 10x16—or 17—-inches would meet our wants in this section better than any other. We do not need as deep a frame as they may in the North. As their winters are cold, their frames should be deep, rather than wide. The heat rises up from the bees, so that they may feed on the honey above them without going in the cold for it. But here our winters are so mild that bees can go in any part of a hive at almost any time, and need no artificial warmth to keep the honey in condition to feed on. We need about a given space for brood, and I think we can get it best with a convenient depth, with width enough to give the required space. All who have handled bees know that shallow frames are most convenient. They can be drawn out with less spaces. The bees are more apt to build straight, and honey can be taken from them more easily.

Where the extractor is used we will have no young bees to get in the way, as the side frames will have nothing but honey, while the center frames will have all brood.

The deep frames that I have used, sometimes have the upper part of the center frames filled with honey, and brood below. Every bee-keeper should have his frames of a uniform size, so that he could change them from one stand to another at will, in artificial swarming, raising queens, and equalizing colonies. I have been troubled with my hives that are not all of the same dimensions, in all of these particulars:

I am glad that your excellent Journal is giving its readers the experience of Southern bee-keepers. This is what we want. We want to know how to manage bees HERE, so that we may succeed best. While we may be greatly benefitted and instructed by the experience of those who are in a colder region, many changes are required to be made. This we can the better learn from those who are situated just as we are.

My Italians are still doing well, keep clear of worms, make a good deal of honey and are very prolific.

Cedartown, Ga., Aug. 28, 1875.

NOTES FROM POINTE COUPEE, LA.

W. B. RUSH.

There seems to be some demand for notes and experiences, and so I will give a few, although I see that an article of mine published last spring seems rather offensive to Mr. Frank Benton. I am anxious to see bee-keeping progress, and think that Mr. Bidwell is moving along finely and in the right direction. And had Mr.

Benton not stated in his article that Mr. Bidwell had made a "great discovery," and that "he was the first man to winter under glass," but merely given an account of his mode of wintering, no contradiction would have been made. I will leave the Editor to decide whether my six columns should go into one or not. His ungentlemanly reply only came to my notice last night.

A few corrections in regard to the honey yield down here. Mr. Webre, apiarian for Charles Parlange, gives me the following statistics: March 20, 65 colonies, 52 of which were Italians and 13 blacks. April 14 increased to 120, and commenced to extract. May 13, 130 colonies and 14 barrels extracted. I remained with him until June 1, when he had 130 colonies and 22 barrels. July 25, the last account I had, was that they had obtained 36 barrels, and on yesterday he shipped 36 barrels, making 44 barrels, of 43 gallons each; a total of 1,892 gallons. Some of his honey was taken before it was sufficiently exaporated.

I got 100 hives, all blacks, 78 in movable comb hives and the balance in box hives. I commenced to extract June 27, and up to July 28 had taken 21 barrels, or 484 gallons of very thick clover honey at twice extracting. I have not taken any since as the yield stopped August 1, and it has rained for a week past until yesterday, when they commenced on the goldenrod.

During my stay with Mr. Parlange (which was quite pleasant indeed), I continually experimented on non-swarming and sizes of hives. At first Mr. Parlange thought me wild, but he changed his mind. The non-swarming was not entirely satisfactory, and our conclusions were that no one thing

would prevent swarming, but must combine several things. First, clip the queen's wings; next give plenty of room; keep the queen cells cut out; keep the hives well shaded; extract regularly, then should they swarm put the queen back and the bees will go back. We arranged one hive with 40 frames, two stories, frames 9x17 outside measure. Another hive four stories, with 36 frames 9x17. A swarm of April 11, gave, up to July 25, 35 gallons. Mr. Webre had it two stories high, but when I ordered two more put on, he did so with a protest, but next year you will see most of Mr. Parlange's hives four stories high.

After much study I have decided on the Langstroth frame. In this climate it is necessary to have shallow frames. I have seen the workings of frames from 10x12 up to 18x26—all in one apiary—and I could learn how each hive wintered through, and could see how they succeeded this summer. Frames need be 16 inches, or more, long, and if they are more than 9 inches deep they will break down when they are turned flat on the side; and after examining many, and trying them for brood and the extractor, I decided on a frame 9x20, outside measure. With good Italian queens in this climate, they have kept 11 frames, 9x17, filled with brood, making 1,580 square inches of comb, or 3,160 square inches of cells. So that I decided on 10 frames to each story, and three stories for a full colony during the honey harvest, and one story during winter. My reasons for preferring this size is that for Louisiana a hive should be of sufficient size for the full capacity of the queen with room for pollen. The honey, when

first gathered, is put as low as possible in the hive if it be thin, and as soon as it is evaporated it is carried up, if they have upper room, and if they have not they cap it over in the top of the frame. It is their instinct to put the honey above the brood, and not at the sides—only on the extreme or last frame of each side, and here is where I object to long hives: I want a hive of three stories for this climate, the first sufficient for brood, pollen and unevaporated honey; and a hive of 10 frames, 9x20, will be the average for that purpose, and as soon as the hive is stocked put on the second story, for honey, and there is but little danger of the queen going above if you leave just three-eighths of an inch between upper and lower frames; and as soon as you have enough bees put on the third story. When you extract do not disturb the first story unless you find capped honey; and should you find your queen cramped for room move a frame of capped brood up to the second story and let them hatch. Why not extract the first story? some may ask. First, you disorganize the progress of the laying of the queen, and she will not do but little, if anything, for the next 24 hours. You stop the feeding of the brood for that day. You stop them from capping the brood, and in shaking your bees off the frames, outside of the hive, you are liable to lose the queen. With double or triple stories you can extract the second and third and not disturb the first. With long hives you must have a partition board, and you have the brood and honey in the same frame; and when you extract you will throw out more or less young larvae, and disorganize the hive. While with a double hive, and not extracting

from the first story, you avoid this. Breeding is carried on much faster in the South than the North, and the consequence is much more honey is gathered.

Pointe Coupee, Aug. 18.

— o —

RATIONAL BEE-CULTURE, PURSUED WITH FIXED COMB, FOR THE CONVENIENCE OF THOSE WHO USE COUNTRY HIVES.

(Continued from September number of BEE WORLD.)

[Translated from July number of *L'Apicoltore*, a Bee-Journal, published in Milan, Italy.]

FOURTH CONVERSATION.

APIARIES AND BEE STANDS.—ON THE ESTABLISHMENT OF THE HIVES.

I. THE APIARY is the place where the hives are assembled, the locality, therefore, of the Apiary may be called the Bee Stand. A favorable position for the bee stand has a marked influence upon the prosperity of the colonies. Bee stands are, generally speaking, in the best position when fronting the east, for then, in summer, the bees do not suffer too much from heat, and in winter they are not excited by undue warmth to go out too often. Also, the bees go forth betimes, during the working season, and they are not detained from returning after the sun goes down. In countries not very warm, the stands may face south-east, or even directly south; but they will require some shade in summer, and some shelter in winter, as a protection against the sun. In hot southern countries, the stand may advantageously face the North.

Above all, the hives should be placed out of the way of currents of wind, and mephitic odors, lest the air of the interior of the hive be infected,

and thus the bees be constrained to keep up a perpetual fanning, in order to clear the atmosphere. And the hives should be out of the way of noises, and of any shaking of the ground by the passage of people or animals, that would impede the free coming and going of the colony. And lastly, it is desirable to have, behind the stand, some defence against wind, that the bees, in returning, may the more easily slack their flight, as they enter.

II. Concerning the settlement of hives with fixed comb, these may be set upon planks against the walls and under the eaves of houses, as is the hereditary custom among some; but in this case they should be placed at a convenient height, so as not to interfere with the free passage of persons coming and going, and also to be easily taken down for any necessary work to be performed upon the hives. However, a better mode of placing the stand would be beneath the arch of a porch, under a shed, or upon some platform or shelf, separate from walls, and at a height to permit a man standing to deal with the bees at ease. But whatever be the position decided upon, it is necessary that the roof, or shelter should project, as a protection against sun and rain; that the planks of the base be sufficiently broad as to extend in front, and thus form a landing place, where the bees returning laden from the fields may alight. Also, the entrance to the hive must be securely joined to the base, in order to leave no openings for the bees to watch and defend. And the hives must be a few inches distant from each other, in order to prevent the colonies from mutually disturbing each other, to which end it would be expedient to have separate base planks for each hive.

The ground in front of and immediately around the hive should be kept clear of grass, weeds, &c., in order that bees falling to the ground may find no obstacle in renewing their flight, and that the bee-tender may clearly see the action of the colonies in front of the hives. No vines nor other climbing plants should be trained against and above the hives, as they harbor insects; and if for the purpose of shade or ornament climbing plants must be cultivated, care should be taken that the leaves nowhere touch the hives. Hives must be specially guarded against spiders, which are, of all creatures most greedy of the product of the bees. It is desirable to have, in the neighborhood of the stand, some receptacle for water, in which should be floating some light substances, upon which the bees may settle without danger of drowning; or better still, some small dish, filled with water, and covered with flannel, through which the bees may quench their thirst, without risk of being overwhelmed.

One may buy either swarms, or hives already formed. In buying swarms, that is, colonies emigrating in spring, they should be of the first issue, and from hives that swarmed the preceeding year, because these have young and prolific queens. These swarms should be large in order to have a good number of working-bees, and they should come forth in the season of most abundant flowering, that the bees may have time and means to construct their combs and to amass their provisions. Late swarms, and small ones are not profitable, because, on account of time and means they do not easily prosper.

In buying hives, already settled,

take pains to ascertain that the queen is young; also that the combs are good, that is, not too old and tarnished, and not infested with wood-lice, or mouldy. For this purpose, examine the interior of the hives, turning them upside down, to see whether they have larvæ, which indicates the existence of a queen, and to discover whether they (the hives) were hived the preceeding year. If hives of bees are bought in spring, care must be taken that they have sufficient provision until the flowering season. If, however, the purchase is made in autumn, then, besides observing the conditions indicated above, it will be necessary also to provide a sufficiency of honey for the winter. It is safer to buy bees in spring, because they then have passed the danger of the dead season, (i. e. non-flowering), and the cold, but it is more expedient to buy in autumn, valuing the hives in proportion to the honey they contain.

In buying bees to convey to different localities, it is well to take them from distant stands, that the bees may never return to their former stand; and the distance should be a good quarter or half-hour's walk in a direct line; or else to delay the transportation until the dead season when the bees having ceased to go forth, have retired to their winter rest.

In order to transport hives with fixed comb, and without a base, they must be turned upside down and covered with a thin cloth, taking care to shake them as little as possible, that the combs be not disturbed. Arrived at the destined place, the hives must be set in position, keeping them upside down, for about twenty-four hours, that the bees may readjust the combs, if, by chance, they shall have been at

all disturbed. Then, gently removing the cloth, the hives may be set in proper position.

CONVERSATION FIFTH.

STINGS, AND REMEDIES, AND METHODS OF
TREATING BEES.

I. Bees sting not for offence, but for the defence of their colony. In deed they are inoffensive when at a distance from the hive, and if not molested; and they are aggressive when in the neighborhood of their hives, and when irritated.

A bee when it stings, injects a poison into the wound, and unable to withdraw its sting, when fixed in the skin, because of its barb like point, it extricates itself by force, leaving the sting, and thus dies.

II. The sting of the bee produces swelling and pain. This is keen for a few moments, but soon ceases. The swelling increases for twelve hours, and in another twelve hours decreases and disappears. After receiving the first sting, the effects of subsequent stings are always less acute, until, in some individuals, they amount to nothing, the blood having become inoculated by the poison.

There is no certainly effective remedy for the sting of bees, some having been found useful in some cases, and of no avail in others. However, the pain may often be diminished, and the swelling checked by bathing the wound with the juice of an onion, with lime-water, or with spirits of ammonia; but above all, it is expedient to extract the sting, in order that all the poison with which it is filled be not emptied into the wound, and to remove a foreign body that would but increase the ventilation.

III. But the bee-tender should make

it his study not to offend and irritate his bees, in order not to make many of the working bees fall victims to their duty of defence. Hence, in dealing with bees, one must have recourse to the following precautions: When in front of, or near the hives, keep quiet, and avoid gesticulations; do not strike at the bees flying around; and if stung, remain calm, in order that other bees, attracted by the smell of the poison, be not also excited to sting. Before touching the hives, blow a few puffs of smoke, in order to make the bees in front of the entrance go inside, and turn the hive upside down, in order to make those clinging to the extremities of the combs, fall off. In performing the various operations, use gentleness, give no severe, or unintentional blows, alarming to the bees, and when the colony shows signs of irritation, quiet them with a few puffs of smoke. Above all, avoid stings—that is avoid being stung by the working-bee, both for one's own safety, and in order not to expose the bees to certain death.—[FLAMINIO BARBIERI, in July number of L'Apicoltore.]

[To be continued.]

—o—
WILL THE POLLEN AND HONEY OF
THE YELLOW JASMINE
POISON BEES?

J. P. H. BROWN.

Last spring, during the flowering of the yellow jasmine, several prominent bee-keepers wrote me stating that their bees seemed to be affected with a peculiar disease. The malady would attack the young bees about the time they took their first meal. Their abdomens would swell up and appear distended with a watery substance. As soon as the young bee was attacked

the workers would drag it out of the hive to die in front of the entrance.

They were alarmed at the appearance of the disease, and wished to know the cause of it.

For a number of years, during the flowering of the yellow jasmine, I have observed the same symptoms with my own bees. The young Italians more affected than the blacks. This, no doubt, was owing to the fact that the Italians, being better workers, gathered more of the jasmine pollen and honey; besides, being more sensitive, their systems are more susceptible to the action of the poison. As soon as the jasmine was through blooming, the disease would at once disappear.

A number of my apiarian friends last spring came to the same conclusions.

The flowers of the yellow jasmine (*Jasminium fruticans*) contains a powerful narcotic poison. Small children are often killed by eating them. Last spring a gentleman nearly lost his life by eating some honey taken from a hive during the bloom of the jasmine. He had all the symptoms that this poison produces.

In the latitude of Augusta the yellow jasmine blooms early in March and lasts for about two weeks. It is very abundant in our forests; and, as it is a trailing, running vine, with an abundance of yellow, trumpet-shaped flowers, it presents a beautiful appearance. For this reason it is often cultivated for an ornamental vine, but it is too poisonous to be allowed to grow in any yard; and I would advise beekeepers to exterminate it whenever practicable.

Augusta, Ga., Sep., 28.

—o—

Renew your subscriptions.

LETTER FROM NORTH MISSISSIPPI.

MARY BAKER.

Our bees are doing well, and are now ready for the extractor. The golden rod and rag-weed began blooming about the 1st. Colonies are raising young bees, and have some appearance of casting swarms. I see in the August number of *WORLD* that friend James recommends the use of salt for the benefit of bees. We have always used it, and my father used it in his apiary when I was a child. Anything that the bees relish must be essential to their welfare. We give each hive a tablespoonful about once a month, sprinkling it down on the alighting board. I do not know whether salt will prevent dysentery or not, but I would try it if I was where bees have that dreadful disease.

I am very much pleased with friend Kellogg's description of a honey room. I also agree with him on the difference in the size of frames. We use a sixteen-frame hive and have a few simplicity hives. The latter I like much the best for extracting, but for selling in the comb I greatly prefer the sixteen-frame hive as they are so much easier handled. Our brood frames are 11x15, and our top frames 6x11, eight frames at bottom and eight at top.

Something has been said in regard to honey quilts; we use corn and coffee sacks, which answer all purposes here.

HOW TO MAKE HONEY VINEGAR.

Save all the cappings and all the water used for washing your honey vessels. Put the cappings in a vessel, and pour on cold water till it is tolerably sweet. Let it stand two days and then strain and put in jugs, leaving them uncorked for two weeks, then cork and set in a cool place. It will be ready for use in two months.

Hernando, Miss., Sept. 19.

NOTES FROM BARTOW CO., GEORGIA.

J. S. DEVITTE.

I have concluded to write you a few lines about my bees, my success, &c. I cannot claim this last spring and summer as anything extra for honey, as I run my bees mostly for increase. I have now thirty stands of bees that are strong, so you may look out for honey next year. I have taken forty-nine gallons from the twelve stands I started with last spring (and it is not so thin as to spatter in your face if a biscuit falls into it).

I paid for my extractor, smoker, BEE WORLD, "Gleanings," &c., with queens of my own raising, and would have sold more if I could have got them purely fertilized. I wish Connoisseur would tell us what to do with black drones when they interfere with queen raising.

I notice every once in a while some one has something to say about bee stings. I do not let them bother me so bad as to require remedies.

If I have a queen that does not keep her hive well supplied with brood I pinch her head off and rear another. To introduce queens I remove the one I wish to get rid of, and put in the one I want to introduce, put on the honey board and lid, take my smoker and smoke them from the entrance until the hive is full of smoke, and if any try to get out I stop them. I have lost but one that way yet, and I can do it as quick as I can write it, after I get possession of the one that is to be removed. If the hive has been queenless for any length of time, I pinch all the queen cells before I introduce the queen.

The rains are doing my bees but little good I think. I will feed them some.

My catnip was in bloom from 13th of June until 15th of September, and the bees worked on it all the time. I will have enough of it next year to give it a fair trial. *Verbena sebacia* failed this year entirely, but furnished more honey last year than anything else.

NOTES FROM MY MEMORANDUM.

Bees did but little from 1st of June until 10th of August, and did not gather enough to keep up active brood rearing.

Wild grapes in bloom on 20th of May; muscadines in bloom 4th of June; basswood in bloom on 10th of June; catnip on the 13th of June; sourwood the 15th of June.

Buckwheat in June and August did not yield any honey. Bees did tolerably well from August 1st to 20th.

My success is due to "Moonlight;" a man cannot be successful without it.
Taylorville, Ga., Sept. 29.

LETTER FROM SHELBYVILLE, ILL.

J. W. JOHNSON.

DEAR BEE WORLD:—I have aught against thee. Thou hast not put in an appearance this ninth portion of the year of Grace, 1875.

A postal from Bro. Moon says he wishes to place you before his readers early in October, from which I infer that good Uncle Sam. has failed to reach Shelbyville with my WORLD. I had written a short article for September. Well, if my poor scrawl did not reach Rome in time to appear in the WORLD, there is no harm done. Or, if received and not thought fit for use still no harm will accrue. But if I should fail to feast upon thy contents, I would certainly be the loser.

From the first of August, when our

floods ceased, till the middle of September, I never saw a better honey harvest. The bees collected, piled up, heaped up, stacked more honey than I ever saw gathered in six weeks. Men with 20 to 25 swarms have extracted three to four barrels of honey. I have been sick and unable to take proper care of mine, yet I will get several hundred pounds, and only had fifteen colonies to commence with in the spring. I doubled my swarms, have sold some, given some away, let some go to the timber, and will go into winter quarters with twenty-five good, strong swarms.

Well, that swarm of "yaller gals" that have been so determined to have their way, have at last "made a virtue of necessity" and gone to work in good earnest; and have ample stores to carry them through the winter.

We often have these very wet summers, but if August and September are seasonable, immense quantities of honey are secured.

My honey I think is as fine as I ever saw: thick, clean and finely flavored—to my palate. I expect to hear of rich diggings from Dr. Davis and S. D. Barber. This last half of September has been too dry for bees to secure much. We have had two heavy, killing frosts here which will put an estopple upon bees' visiting hundreds of flowers, yet should there be rains in season, and the weather be warm, bees will be able to collect from a few hardy flowers considerable honey. Of pleasant weather we have no assurance, as winter frequently sets in early,—even severely. If this should be the case, terrible will be the havoc among bees.

Sheilbyville, Ill., September 27.

Feed all weak colonies at once.

SKETCHES FROM TENNESSEE.

S. D. MCLEAN.

HONEY NOT A STAPLE.

MR. EDITOR:—It is a remarkable fact, though not less remarkable than true, that honey has no commercial value attached to it.

Why is this? Is it in consequence of too small a quantity being produced to attract attention in commercial circles? or is it for want of just appreciation by the public? or a fear of being humbugged in consequence of bogus and spurious imitations? or a want of concert of action by the producers?

When we look around and see the amount of honey produced in our immediate vicinity, when we read the almost incredible reports of many of our successful bee-keepers, dotted here and there all over this great country of ours, we are slow to believe that the amount produced is too meager to attract attention. Neither can we conceive the idea that it is a want of appreciation on the part of the consumer. We are confident that there are comparatively few persons who do not relish the flavor of honey, and would be glad to have it grace their tables at every meal. Then the hindrance certainly rests with the last two causes enumerated above. Is there no remedy? Surely bee-keepers deserve a better guarantee than trusting to the vagaries of an uncertain market. Who will start the ball rolling to build up and establish a great trade that may culminate in placing honey alongside with the other staple commodities of our country. Such a result is much to be desired and ought to be attained. It would benefit alike the producer and consumer; the former, by making his sales more sure; the latter, by

guarding him against extravagant prices, and assuring him, in making a purchase, that he was paying the regular market price. It is true that different grades would bear different prices; so it is with other commodities of trade, and honey should not be an exception. A good article should not bear the same price of an inferior one.

It would likewise give a new impetus to bee-keeping. Many persons, not now in the business, would fall in rank, could they be sure of sales at paying rates, and millions of pounds of honey, that now go to waste, would be garnered and turned into gold.

The subject is of vital importance, and merits the careful consideration of every bee keeper in the country. Being engaged in the same enterprise, all should be interested alike in a cause for the common good.

APIARY FOR OCTOBER.

The operations to be performed in the apiary during this month will consist principally in making the necessary preparations for winter. All stocks too weak in numbers to go through, should be united with others now, or be immediately built up to strong colonies, by giving them either bees or capped brood from strong stocks that can spare without endangering their own safety. Or two or more weak stocks might be united, forming good colonies. All nuclei may be disposed of in like manner.

It is very important that all colonies should begin winter strong in numbers, for such only may the apiarian expect to come out strong in spring. See that each colony is provided with plenty of sealed honey to carry them through. It is unsafe to rely upon unsealed honey for wintering bees. Aside from its being unwholesome as

food, it is liable to create trouble in the apiary by enticing robbers. If bees are scant of stores, and no prospect from fall pasturage, they should be fed on syrup made from a good article of sugar, while the weather is warm enough for them to eat it.

Culleoka, Tenn., Oct. 21.

INTRODUCING QUEENS TO QUEENLESS STOCKS.

The discovery of a queenless stock in a hive is an almost everyday occurrence, when the usual first impulse is to purchase a Ligurian [Italian] queen to place at the head of it, it being considered a capital opportunity for Ligurianising. Now our practice when we discover a queenless stock is to give it a queen from a strong one, and introduce the Ligurian queen to the latter, so that her powers may have full scope. A great deal of the outcry made against Ligurians arises from the fact that the queens have been put into hives in which they have had no opportunity for displaying their powers to advantage. A queen under any conditions can only produce as many young bees as her subjects can rear; and in a queenless stock there being few, or no young bees present, the nursing department is necessarily on a very limited scale; and as three weeks must elapse before there can be any births in the hive, during which time there will have been many deaths, the stock is generally a long time recovering its strength, and, if late in the season, will probably not recover at all. This is a very ordinary case, and with ordinary queens is not specially noticed, but when expense has incurred in the purchase of a Ligurian queen whose powers of breeding are 'said to be enormous,' (?) it as-

sumes an aspect of noticeable importance, the collapse of such a stock is recorded, and the fact published to the disadvantage of the Ligurian character generally, whereas the fault, if any there be, usually lies at the door of the bee-keeper.

Another method of queening a moth-erless hive, and giving 'a chance,' often practicable, and generally safe, is by the exchange of its population for that of a full hive, i. e. drive out all the bees from a strong hive, and all the queenless bees from their hive, then give the hive of combs and brood to the latter, and the broodless hive of combs and bees to the former; stimulate the stock last mentioned by gentle, continuous feeding, and to the still queenless stock give a Ligurian queen, or, if the season be suitable and the brood pure, let them raise one for themselves from the larvæ in the combs just given to them.

By this mode a Ligurian queen will have the opportunity of displaying her powers, as young bees will be hatching daily, which will attend both to her, and her brood. Putting a Ligurian queen into a weak hive, is about as reasonable a proceeding as employing a powerful steam-tug to tow a tiny canoe.—[British Bee Journal.

—o—

PREPARING BEES FOR WINTER.

Success in wintering will depend very much upon the present month's operations. If colonies are sufficiently populous, and have a prolific queen, the next important step is to ascertain the amount of honey in each hive, and if any are found wanting, to give them a supply. We must first know what the hive, combs, and bees, will weigh without honey, and add 20 lbs.

for in-door wintering and 30 lbs. for out of doors, which will be a sufficient supply. To determine the amount necessary, weigh an empty hive and frames, and allow 10 lbs. for bees and combs. In some cases this will be an over-allowance, but with old combs, containing bee-bread, it will be found to be a fair average.

The cheapest and best food may be prepared by using "A coffee sugar;" add 4 lbs. to a quart of water, bring it to a boil, skim, and allow it to cool. This syrup is more desirable than honey, as it is not liable to induce robbing while feeding, and the bees winter equally well upon it.

Probably no question will interest bee keepers more than the best way to feed. During the five years we were associated with the late M. Quinby, our experience in this direction was quite extensive. In the fall of 1869 we fed over 5,500 lbs. of sugar. Those having box hives may use some good feeder, or a dish of proper size to set under the cap on top of the hive. Fill the dish with the honey or syrup, and throw on fine shavings or cut straw, to prevent the bees from falling into it. Those using movable frames will find the process we have most thoroughly tested and adopted, practical and convenient. We put the feed directly into the combs, as will be described. Each comb, if well filled, will hold about 5 lbs. Combs may be removed from the hives that are to be fed, filled and returned; or, if there is a surplus of empty combs, they may be prepared before hand, and exchanged for empty ones in the hive at one operation. Fill the combs as follows: Take a can or tub about two feet across the top, in which place the syrup made as above directed.

Then take a board a little wider than the depth of the frames, and nail a strip on each edge, which shall project about one inch above, to prevent the liquid from running off the sides of the board, and to conduct it back into the tub. Place one end of this board on the tub, and the other upon legs elevated enough above it, so that the feed will run off freely. Then, in a common quart dipper, punch 1-16 inch holes, about $\frac{3}{8}$ of an inch apart, over the bottom. Place the frame of empty comb on the board, and dip up the syrup, letting it drain into the cells. A little practice will indicate the distance the syrup must fall, as there must be force enough to drive it to the bottom of the cell, and not so much as to cause it to spatter out. In turning the combs to fill opposite sides, care should be taken, or the combs may fall out of the frames. To prevent this, use a piece of thin board, the size of the frame, placing it under while filling, and raise the comb with it to an upright position, and then place the board on the opposite side, and fill as before. As fast as the combs are filled, set them up perpendicularly, where the extra syrup may drain off. These operations must be performed in a room where bees can make no trouble. Combs filled with syrup must be placed in the hives after the bees stop flying at night. Too much care cannot be taken to prevent robbing. After the required amount is put in the combs, it is well to weigh the whole again, to see that nothing is lost by robbing.

Feeding should be done as early as possible this month, while it is warm enough for the bees to seal up the cells. In colder latitudes it would be

well to do it in September, especially if the bees are to winter out of doors. If, by weighing, some hives are found to contain more than the necessary amount of honey, heavy combs may be exchanged for light ones from other hives. Colonies may be unfit for winter from containing too much honey. The idea of wintering light swarms, or those with few bees, we cannot oppose too strongly. In all our practice we have not found a point in its favor. A colony in good condition for winter has plenty of bees, a fertile queen, 20 to 30 lbs. of honey or syrup, and a free passage through the combs.—[L. C. Root, in American Agriculturist for October.

—o—
WASPS AND BEES.

The solitary sand wood wasps, which form the next group of Hymenoptera (Fossores), have the legs of the female usually adapted for burrowing, and not for collecting pollen. The forewings are not folded longitudinally, as in the true wasps, and the tongue is never lanceolate or filiform. They vary a good deal in size, shape, and general appearance, having sometimes a superficial resemblance to other insects of the order. There is a considerable variety of solitary wasps, eight families being represented in Britain.

They generally form burrows in sand or light earth, but the smaller species burrow in brambles, or some other stalk sufficiently soft for their purpose. Some species form burrows in rotten wood. After the egg is laid at the bottom these burrows are provisioned with spiders, or small insects, such as caterpillars, flies, aphides, etc., which are destined to serve as food for the grubs when hatched. Some-

times dead insects are stored up; but usually the wasps sting their prey in such a manner as to stupify without killing them, thus preserving them in a fresh state and incapable of escaping till they are required by the young brood. The perfect insects may often be noticed on the flowers of Umbelliferae (the wild carrot, parsley, chervil, etc.), or burrowing in sandy places.

The true wasps (Diplopera) are divided into two families, Eumanidae and Vespidae. The fore-wings are folded longitudinally in repose. The solitary wasps much resemble the Fossors in their habits; and differ from the social wasps in having bifid claws. One species belonging to the former group (*Eumanes coarctata*) makes a little cell of mud, which it attaches to the stems of plants, particularly the common heath. Each cell contains one grub, which is fed with a supply of the larvæ of small lepidoptera.

The social wasps, of which there are seven species in Britain, live in very large communities, composed, as in the case of most social insects, of males, females and neuters, which are sterile females. They form their nests either in the ground or suspended to trees or bushes. These nests are filled with cells similar in construction to those of the hive bee, but composed, like the nest itself, of a substance formed of the raspings of wood, and more like coarse paper than anything else.

Each nest is founded by a female which has survived the winter in some sheltered nook, and consists at first of but few cells; but it is rapidly enlarged as the successive broods are hatched during the summer, and has been sometimes found to contain as many as 16,000 cells. All classes live in

harmony, and join in the useful labors of the nest: the females furnishing the population; the workers providing food, attending to the young, and enlarging the nest, and the males keeping the passages and cells clean.

The number of inhabitants of a wasp's seldom exceeds 3,000. In the autumn, when cold weather sets in, the frost soon destroys the whole community, except a few females, which pass the winter in a torpid state. Therefore, if we kill the large wasps which are the first to appear in spring, we shall prevent the formation of nests which we may afterwards find it difficult to destroy.

The bees, or Apidae, the last of the group of the stinging hymenoptera, may most easily be distinguished from other insects of the order, which some species superficially resemble, by the hind-legs being more or less flattened, for the purpose of carrying pollen. They are divided into two families, the Andrenidae, in which the tongue is variously shaped, but does not form a long proboscis as is the case in the Apidae, the family to which the hive-bee and the humble-bees belong. The Andrenidae form cells for their larvæ either in the sticks of bramble or rose, or burrow in the ground. The larger species appear in early spring, and may be met with flying round the blossoms of the willow. Some of the Andrenidae are gregarious, others strictly solitary; but none are social, in the proper sense of the word.

The Apidae differ greatly in their habits; some are social, others solitary, and others again parasitic upon other bees. One section is called 'cuckoo-bees,' because they haunt the burrows of other bees, watching an opportunity to put their own eggs

among the food, in place of that of the rightful owner. When this occurs the latter deserts it, and sets to work elsewhere. Others of the Apidae form their cells in dead brambles in the ground, or in walls; sometimes even snail-shells are used for this purpose. The leaf-cutting bees form burrows in decaying wood or other soft material, which they line with circular pieces of leaves, cut with great neatness from rose-bushes and other trees.

The social bees consist of the humble-bees and hive-bees. The humble-bees are large and handsome insects, well known to all observers; the commonest species are either banded with black and yellow, or have the extremity body red. They live in small communities of males, females and neuters, in nests formed in the ground or among moss. They differ from the hive bee in two very important particulars—first, the smallness of their nests, which probably never contain more than 250 inhabitants, and sometimes only twenty or thirty; and second, in the presence of several females in the same nest, in which last particular they resemble the wasps and ants. Humble bees, perhaps, partly owing to the exposed situation of their nests, are infested with many parasites, and if a bee is captured, it is no unusual thing to find several mites running upon it.

The genus *Apathus* consists of four species much resembling humble bees, and which are believed to be parasitic. There are no neuters in this genus.

The hive-bee is too well known to need description here. Its remarkable economy and great intelligence have been known from the earliest times. The hive-bee of the classical

authors is not our common species, but is known to modern bee-keepers as the Ligurian bee. It has recently been introduced into Great Britain from its native country, the south of Europe, and is so closely allied to the hive-bees that it is said on good authority that hybrids, or crosses between these two domesticated species, are not uncommon.—[W. F. KIRBY, in *Irish Farmers' Gazette*.

—O—

A TRIP AMONG THE BEE KEEPERS.

D. W. FLETCHER.

Having just returned from a visit among a few bee-keepers in this section, I communicate to your readers what I saw. I called at the residence of a very interesting old gentleman, who had been a bee-keeper many years, and who was of the opinion that bees should always have their own way, and that patent hives was one of the chief causes of the destruction of so many of our bees. I recollect visiting him some fifteen years ago, when a lad, and helping him take some promising colonies of bees, just in the edge of the evening, and consigning them to a brimstone grave. We had lots of nice honey, well perfumed with sulphur, with warm biscuits, for breakfast. He does not destroy so many bees in that way now, but uses boxes for surplus. He reads Quinby's book with much interest, but cannot become reconciled to frame hives, nor Italian bees.

I next visited at a farm house, the yard of which contained some twenty nicely painted hives. I anticipated some pleasure in going through this apiary, but on trial found that not a half dozen frames in the whole yard could be raised without tearing the

combs apart. They were Kidder's Compound hive, doubled wailed. I have come to the conclusion that all frame hives need careful attention and management or they will disappoint their owner. In my travels I found mostly hives without frames, similar to the one described in Quinby's Mysteries of Bee-Keeping. In some localities bees have done finely this year in these hives, with no care, apparently. One man expected to sell about \$300 worth of bees and honey. Wherever I was I saw that bees did well if the locality was good, regardless of the hive, and with almost any kind of treatment. I find in bee-culture, (as well as other branches of industry), everyone has different methods and ideas from his neighbor.

After a social visit and talk with a good number of friends of bee-culture, I came home well pleased with my visit, having had the satisfaction of learning a great many useful items in bee-culture.

I think the BEE WORLD grows better with every number. It is worth just as much for northern bee-keepers as for southern. Let us all unite in making it still better.

Lansingville, N. Y.

—o—

FOREIGN INTELLIGENCE.

[We clip the following items from the British Bee Journal for August and September.]

FRANCE.

The price of honey of the new season has been fixed at 130 to 135 francs [a franc is 18 cents and 6 mills], per 100 kilogrammes, [a kilogramme is 2½ lbs.], barrel free.

It is intended to open a subscription among bee-keepers to assist those

whose apiaries may have suffered from the recent inundations in the south of France.

The season (August) continues in a most satisfactory manner. Stocks generally are gathering honey on a large scale, while an abundant swarming has had the effect of almost doubling their number. Flattering reports are also reaching the Association from such bee-keepers as have imported Ligurians with a view to improve their apiaries.

GERMANY.

According to the Journal de Breslau, Dr. Dzierzon has been a victim of his Bishop's injustice. The doctor, who, as is well known is no man of fortune, enjoyed a pension from the bishopric, of which the Bishop thought proper to deprive him owing to the doctor's refusal to accept the dogma of the Pope's infallibility. The matter, however, having been referred to the law, the result has been that the Bishop has been ordered to pay the great bee-master his usual pension, plus all arrears and interests. The decision has been welcomed by all interested in the progress of bee-culture.

ITALY.

So far, the honey yield has proved very plentiful throughout the Peninsula; besides, the season being much later, bees are reported to be still (September) very busy making their harvest.

—o—

A young swarm builds worker combs exclusively at first. Weak swarms seldom build drone combs the first year.

—

They say that bees,
If any creeping life invade their hive,
Too gross to be thrust out, will build him round,
And bind him in from harming to their combs.'

PROFIT

When a man thinks of starting bee-keeping, he generally has an eye to profit, and the question is commonly asked: "How much honey shall I get per hive?" Now this question is more easily asked than answered, the result being dependant on so many circumstances, over some of which we have no control. Moreover, many think they have only to obtain a hive of bees, set it down in the garden, and giving it no attention, profit must, as a matter of course ensue. This is a great mistake; the farmer sows his seed with the same end in view, "profit." Nature makes the seed to grow, but without attention from the farmer, but a poor crop would be gathered in.

We buy poultry, feed and attend them, and profit by their eggs and increase; but we get none of these advantages without a proper share of attention and expenditure. Thus with bee-keeping: thousands of bee-keepers in England, belonging to the agricultural laboring classes, keep bees, give them the minimum of attention, and make but small profit; and the educated bee keeper, unless he follows a more rational plan, must not expect a better result. Mr. Pettigrew, in his Handy Book on Bees, wherein he advocates the use of straw skeps only, talks of the contents of these hives commonly weighing from 100 to 150 lbs., and instances a swarm in its first season reaching 160 lbs. in weight; he also states that in a village in Lanarkshire, the profits of bee-keeping averaged in six consecutive years, 2£ 11s. 8d., (about \$12.40 American coin) per hive.

I can only say, I never saw such hives, and none made their appearance

at the Crystal Palace show where they could not have failed to take many prizes; and the bee-keeper who allows his expectations to rise to this height, will be grievously disappointed, more especially if he repudiates the use of all improvements of modern times, the result of the collective experience and wisdom of able and truth-telling observers. Very strong stocks have been known to gather 10 or 12 lbs. per day during exceptionally good honey weather; and a skillful apiarian in a good honey locality and season, by the expenditure of ceaseless care and attention, may, perchance, with a strong stock of bees, obtain a super of 80 or 100 lbs. of pure virgin comb.

"Huge honey combs of golden juice,
Not only sweet, but fit for use."—*Virgil.*

This is a feat to be proud of, but years may elapse before such a result is attained, notwithstanding the devotion of unlimited time, and the exercise of special skill in fostering, which the many are not able to bestow.

An average price for a good swarm of English bees, we may set down at 15s., (about \$3.60 American coin), a little more or less, according to the abundance of bees in the neighborhood. If we allow 2s. (48 cents American coin) per annum for capital expended on a good frame hive, not a fancy article, and 3s. (72 cents Am. coin) for sugar, in hard times, we shall have an annual expenditure of 5s. (\$1.20 Am. coin) and the stock, after the first year, may be fairly expected to return one swarm, value 15s. (\$3.60 Am. coin), and say 20 lbs. honey, value 20s. (\$4.80 Am. coin), a very large profit on the capital employed, setting aside exceptional years, when two or more swarms will come off, or the super of 50 or 100 lbs., that possibly

may gladden the eyes of the exultant bee-master, also the contingency of the swarm in its first year, giving a surplus in honey or virgin swarm.

Is not this profit enough to satisfy all but the most grasping usurer? A laboring man residing in almost any rural district may keep quite fifty hives of bees, without interfering with his ordinary occupation; it is not necessary that his own garden should contain them all; the country clergyman or squire would, in nearly all cases, obtain or give permission for the standing of hives in their woods, fields or waste ground, and feel pleased at being able to assist in the industry of their poorer neighbors.

The thousands of railway-servants, station-masters, porters and signalmen, have splendid opportunities of increasing their income by bee-keeping; the bees would prosper on, and gratefully accept the shelter of the railway banks, which are generally clothed with flowers in all the luxuriance of their untended wildness; and amongst the passengers using the stations, would be found willing customers for the honey and swarms. Those who can make, buy or borrow a honey extractor, will derive a far larger profit, if using frame hives; and such an instrument may be the joint stock property of a whole village, travelling from one apiary to another. But there is another kind of profit besides that of money. Who but those who have experienced it can tell of the large fund of instruction, pleasure and amusement, afforded by the busy bees.

The industry and activity of bees in their domestic labors, afford an instructive and amusing spectacle. All are actively engaged; each attending

with all its power, to the business to be done. Some feed the young larvæ, others seal them over when full fed. A certain portion attend upon the queen; then there are the cell builders, and the mighty moving array of honey and pollen gatherers. No skulking, no idleness; each bee knows what it has to do and does it. Many employments there are in the hive; some bees ventilate, others perform all the operations of scavengers, so that by night and by day work goes on unceasingly in this busy home of industry.

"Behold! yon hard'ring fence of fallow trees,
Is fraught with flowers, the flowers are fraught
with bees:

The busy bees, with a soft and murmuring train,
Invite to gentle sleep the laboring swain."

—*Virgil.*

No need to stray from home in search of recreation in our idle hours, the bees will teach us these should be unknown. Employment and interesting instruction will always be found in the careful watching for the welfare of the stocks in fine weather, and when the elements are unpropitious our ideas may be enlarged, and our mechanical genius fostered by the manufacture, improvement and invention of hives and appliances. In the long evenings of winter, all may be got ready for summer's requirements. Many of our ablest apiarians whose means permit, are content to sink pecuniary profit, and devote all their energies to the philosophical study of the mysteries of our industrious little friends and their works. Some beekeepers also aim only at increase of bees, finding the sale of these pay better than honey; and as a rule, it may be taken as correct, that if the breeding power be unduly pushed, the storage of honey must be sacrificed.—

A Manual of Bee-Keeping by John Hunter.

CHIPS FROM SWEET HOME.

D. D. PALMER.

"I beg pardon for troubling you, but I wish to ask you a few questions." Now Miss A., the questions are all right, and will be answered; but no pardon to be begged. It is nothing more than right that we, as a family of bee-keepers, be willing to edify each other. I sometimes ask questions, and never fail to get an answer.

Yes, we feed all the time when they are not gathering enough for stimulating. We like to have lots of brood raising, spring, summer, and fall. Have a hive strong and "chuck full" of brood, and bees ready for honey when it does come, and there will be no room below for honey, and they will store it in surplus boxes or frames. When winter sets in we like to have plenty of young bees that will not be old when spring arrives.

We give $\frac{1}{2}$ lb. of sugar, or its equivalent, in syrup, for each hive, making it only sweetened water, for stimulating; and when honey comes they will have the sweetened water for that which is better. Should the flowers yield nothing, and sugar or money give out, and our hives are full of brood and but little honey, then the consequences would be that brood-rearing would cease, and many would starve.

The top of our Universal feeder is made of tin, which is perforated and is called "perforated tin;" this is fastened to a rim which fits close, and fastened by three hooks. The type made me say "I insert it over a washtub, so that any leaking may be saved;" instead of "insert," read "invert." Yes, the top is movable, and is similar to a

tin-bucket lid, only the rim of the feeder goes outside. When feeding very thin syrup, we put two thicknesses of muslin on the inside of lid, "basted" on. We put in more or less syrup, according to the number of our hives. It is not necessary to fill it; the muslin prevents it from running through too fast.

Feeding outside of hives in one Universal feeder saves time, robbing, and the expense of many small feeders.

We are now using our can or feeder for beeswax: all worthless comb and cappings are thrown into it, and semi-occasionally it is put on the stove and the wax melted, instead of being left for the moth. Since we have Italianized our apiary we are troubled but little by the moth; ants and spiders are worse this year.

Some time since, some writer said that the Italians built larger cells than the blacks; a few days since we got a swarm of blacks and had an opportunity to verify it. Their worker combs measured 100 cells in 2 inches square (or 4 square inches), and the Italians only 82 in 2 inches square. Is this an improvement, or not? Are Italians smaller by being raised in cells made by black bees?

SEP. 14.—We have 108 hives, of which 50 are storing in boxes, an extracting from 15, 41 are comb building, and 2 have queens not laying.

We use all good drone comb for guides in surplus boxes. To secure this we are cutting out drone comb, and have our comb-builders fill in with worker-comb. For this purpose we employ nuclei and weak swarms, giving them from two to three full combs of brood and one or two empty frames. These we keep strong by crowding with a division-board, examine once

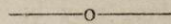
every two or three days, according to the tendency to build drone comb, which is regulated by the amount of honey being gathered, building work er, if scarce, and vice versa.

How would I secure the greatest amount of box honey? I would have large hives;—if Langstroth frame, 9x17 inches, outside measurement, I would have 13 frames. Commence in the spring with as many combs as the bees can cover. When honey and pollen is not to be gathered, stimulate by feeding rye flour and sweetened water. Insert between each two combs of brood an empty comb. In this you will need to be guided by the prolificness of the queen, amount of bees and the weather, using a division board until you have filled the hive with 13 frames of brood. Have the hives made with a front, or entrance, at both ends; these you will regulate, keeping them more or less open, according to the weather and strength of colony. If you use the Langstroth blocks that have slots, put the slotted sides up, as they harbor worms. Be careful not to put any drone comb in the hive, for they raise a lot of useless consumers, and incite them to swarm. Did you ever know a hive to swarm that had no drone comb? Having all worker comb full of brood, the hive crowded with bees, and they leave your sweetened water for honey abroad, put on twelve 6-lb. boxes— or perhaps better use a section box of frames similar to the ones used by Clarke and Harbison of California. I make them as follows: Upright side pieces, $6\frac{1}{8}$ inches long, $1\frac{3}{4}$ inches wide, and $\frac{3}{8}$ inches thick, top piece $6\frac{1}{4} \times 1\frac{3}{4} \times 3-16$; this piece is nailed on top of side pieces; bottom piece is $\frac{1}{2}$ inch square and $5\frac{1}{2}$ inches long; this is nailed be-

tween the pieces, with one corner downward. For nailing, use lath nails. These frames are held together by a thin strip of wood, laid in $\frac{1}{2}$ inch mortice in the center of the outsides of uprights, and tacked with cigar tacks in the end section. A 13-frame Langstroth hive will hold four of these section boxes of 11 frames each; storage capacity, 112 lbs., instead of 75 lbs. in boxes. We put 6x7 glass on each end of the section box with glue. These frames will hold about $2\frac{1}{2}$ lbs. of honey, and may be retailed separately. These frames give us the advantage of large boxes; bees will store more in a large box than a small one; there is more surplus room, and when partially filled they may be emptied with the extractor, and the honey sold, instead of laying by from 1 to 4 lbs. per box till next season. The frames will need a thin strip of comb as guide, which may be fastened to the top piece with glue or beeswax and resin in equal parts. About once a month it is well to open hives that are run for box honey and empty any combs that are filled and return, putting them in the center, and those filled with brood to the outside.

This has been a cool honey season with us; late frosts last spring, and early frosts this fall. We have increased from 55 to 105, and got 1,000 lbs. box honey, worth \$200, and 2,000 lbs. slung honey, worth \$300. I have less than \$1,000 invested in bees, etc., 10 per cent. of which is \$100; and 50 days, or less, work at \$2.00 per day equals \$100. So you see I have \$300 above interest and work, which will do for a poor season.

Elisa, Mercer Co., Ill., Oct. 2.



Sample copies of BEE WORLD free.

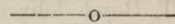
SURPLUS HONEY AND CARE OF BEES.

We extract the following from an essay on bee-culture, read by Mr. J. A. Crane before the Board of Agriculture of Vermont:

As fast as boxes are filled and capped they should be removed, and replaced by new or empty ones if the harvest will warrant it, and as soon as the harvest fails, all should be removed, as the combs become soiled by the bees, if they remain very long in the hive after being filled. And just here I want to say a few words about boxes. For market, they should be with glass sides and ends, with top and bottom of wood, and of a size that when filled will weigh about four pounds. I make mine six and a quarter inches long by four and a quarter inches wide, and five and a half inches outside. Two nice, white pieces of comb should be attached to the top before the box is nailed together, to induce the bees to commence, and guide them in building straight combs lengthwise of the box; such combs being the most suitable size for the table. When ready to ship to market these boxes should be made tidy in appearance by removing all propolis, and if the glass side of a box is badly soiled it should be removed and replaced by a cleaner one. Cases should be made with open sides, that the quality of the honey may be seen at a glance, and large enough to hold twelve boxes. In these carefully pack the boxes, three in width and four in length, on one end mark the net weight, with the owner's initial letters. October and November are the best months to ship to market.

After the honey harvest is past and all the boxes removed, the bee-keeper should again go over hives to see that

all have abundance of honey for winter. If any hive is found that is lacking in food it should at once be supplied, or else the stock must be broken up later in the season and united with some other colony. If there is a deficiency of bees in any hive, they must be supplied with brood from hives that can spare it, or else they must be stimulated by feeding to rear young bees, or two or more such can be united. Also at this inspection the age of every queen should be noticed. If any queen is found that is three years of age or nearly, it should be destroyed and replaced by a young queen. A queen three years of age may winter well, but is apt to fail early the next spring, which is very injurious to the prosperity of the colony. I prefer after the harvest to destroy all old queens over two years of age, and give the colony a young one instead. If a hive contains a young, fertile queen, an abundance of young bees hatched out the last of the summer, and plenty of honey, it possesses the most essential requisites for successful wintering. Comb two or three years old is preferable to new comb, as it is warmer.

BEE CULTURE IN MAURY COUNTY,
TENNESSEE.

We extract the following brief report of the proceedings of the Maury County (Tenn.) Bee Keepers Society from the Herald and Mail, Columbia, Tenn.:

The Maury County Bee Society met at the Recorder's office on Saturday, the 9th. There was a good attendance, nearly every portion of the county being represented. The meeting was called to order by Mr. W. S.

Rainey, after which the minutes of the previous meeting were read and adopted. The constitution submitted at the last meeting was taken up and acted upon, section by section. Articles first, second and seven adopted as read. Article fourth, so amended as to make the term of office twelve months, and the number of the Executive Committee, three. Article fifth, amended to make all committees, except the Executive appointed by the President. Article sixth, the stated meetings were fixed on the first Saturdays in January, April, July and October. Article eight was so amended as to require all amendments to the constitution to be made at a regular stated meeting. The constitution as amended, was then read and adopted as a whole.

The society then went into an election of officers for the next ensuing year, with the following result:

W. S. Rainey, President; C. C. Vaughn, Vice President; Wm. J. Andrews, Secretary and Treasurer; Dr. A. T. Boyd, David Staples and J. J. Jones were elected as the Executive Committee.

After the close of the regular business Dr. A. T. Boyd delivered an address on Apiculture. We will not attempt to give the whole lecture of the doctor, but simply the heads of the different points he touched upon. In the first place he spoke of the kind of hive which should be used, that no one could be a bee-keeper and thoroughly understand his business, unless he used the movable frame hives.

SWARMING.

He did not believe in artificial swarming; preferred natural. Spoke at some length of after-swarms. Tho't one swarm sufficient and that all after

swarming should be prevented. He clipped the wings of his queens; then when they swarmed the queen fell upon the ground and he had no trees to climb nor large limbs to saw off. When the queen came out and fell to the ground he covered her with a small box; he then moved the hive from which the swarm issued to a new position some twenty or thirty feet distant and placed a new hive on the old stand. That as soon as the bees missed their queen they would return to the spot from whence they had issued in search of her. When they had sufficiently settled, he released the box in front of the hive, and allowed her to crawl into the bees. His experience was that the moving of the hive from which the swarms had issued, would, as a rule, prevent any after swarms, but it was not infallible—that he had known after swarms to come from them. He made it a rule to return all after swarms to the hives from which they issued, and had never known bees to desert brood.

AGE OF BEES.

It had often been said that bees were short lived; this he was fully aware of, and anyone could very easily satisfy themselves on that score. He had, himself, removed on the 12th of August a black queen from a hive that had only black bees in it, and introduced a yellow queen, and to-day it had very few black bees in it—in fact, it was difficult to find them. This went very clearly to prove that the bees were very short lived, that a great many bees were destroyed on the wing. It was therefore very essential to have a fertile queen to keep up the stock from the waste of life.

VENTILATION.

There should be upward ventilation

in winter. The bees themselves would generally regulate their own ventilation. Winter ventilation was necessary to prevent combs from becoming mildewed and freezing.

ANGER OF BEES.

He had found all kinds of bees different in their anger. Some of the same species being more gentle and much easier handled than others. The best thing to subdue their anger, was to make them fill themselves with honey; a bee filled with honey never wants to sting. Bees always filled themselves with honey just previous to swarming. Another thing to prevent them from becoming angry, is gentle and quiet handling; a person should never make any quick motions about their bees, but their movements should be slow and deliberate.

THEIR ENEMIES.

While the bees had many enemies, he regarded the moth the worst, but with good strong colonies and a fertile queen they were not to be dreaded. Moth proof hives were a delusion and humbug. The Italian bees protected themselves better from the ravages of the moth than black bees; but never saw a black bee working at moth webs, and have frequently seen the Italians at it.

REARING QUEENS.

On this subject he deemed it useless to say very much. It was presumed that every bee keeper understood this branch of the business. Queens were hatched in about twenty-one days, and were fertilized in the air. Unfertilized queens were drone layers—a fertile queen will commence laying in a few days after being hatched, an unfertile one in about three weeks. The queen is much longer lived than the worker-bee. They frequently become

barren when two years old. Queens are enormous eaters. They lay from one to three thousand eggs a day. Early reared queens he regarded as much the best.

THEIR KEEPERS.

He thought the bees were controlled very much in all their acts more by scent than sight. Thought they knew their keeper from other persons by the scent of his body.

WINTERING BEES.

Their supplies frequently become exhausted during the winter and early in spring. In that case they should be fed. Sugar candy he thought a very good food, but honey was the best. In the spring there was usually many disagreeable days,—during such days it would be best to feed all a little. He prepared his bees for winter by putting cotton, mote and seed on top of the hive, which afforded them sufficient ventilation, and absorbed all dampness and prevented a cold draft through the upper part of the hive.

At the close of Dr. Boyd's remarks, Mr. David Staples made a few remarks. He differed with the doctor about upward ventilation; he did not want any in his hives—thought paper the best absorbent to use. He extended his remarks at some length on his system of Rareying bees, as Rarey did animals. He introduced queens by shaking them from the frames and subduing them, until they became perfectly quiet and peaceable. He then dropped queen among them and let them re-enter the hive together. Mr. Staples said he had been working some days in sorghum, and had noticed that his bees worked very freely on the stumps of the cane. The species of sorghum that he had cultivated was what was known as the red

top variety. In cooking the syrup the bees rapidly took up any that was dropped. He had examined his hives and found that they contained pure sorghum syrup. He intended trying an experiment with half a dozen hives by extracting the honey and feeding them on sorghum and thought it might be a cheap winter food. It had been tried North—knew that it would not do there, but thought it might do South. Mr. Staples continued his remarks to some length on feeding—as a stimulant to bees he always used sour syrup, as they would not store it in their cells.

Mr. J. J. Jones differed with Mr. Staples, and said that his bees would not eat sorghum. In reply to a question as to the best preventative of ants it was decided to be diluted salt.

The subject selected for discussion at the next meeting was "Feeding bees—its mode, object and result," and also "queen rearing."

Wm. J. Andrews offered the following resolution which was unanimously

RESOLVED, That all the Bee Keepers of Maury county be invited to each meeting of this society, but only those who pay the society fee, and sign the constitution to be entitled to a vote or to participate in the business of the society.

It was moved and adopted that Mr. David Staples be requested to deliver a lecture at the next meeting, and in the event of his being unable to be present, that S. D. McLean should do so.

The Society then adjourned to meet again the first Saturday in January, 1876.

W. J. ANDREWS,
Secretary and Treasurer.

—o—
Subscribe for the BEE WORLD.

THE CYPRIAN BEES.

I am quite gratified to find that considerable interest is manifested in the proposition to procure the new races of bees now in Europe.

If such bees, as we have abundant reason to suppose the Dalmatian, the Smyrnian and the Cyprian races are, can be successfully introduced here, the result cannot fail to be of great benefit to the apicultural interests of our country. The bee-keepers of progressive America, cannot better celebrate the centennial year of our national independence, than by thus taking steps to increase the prosperity of this our beloved land.

The first colony of Cyprian bees brought to Europe, arrived in its original hive, which was a long earthen cylinder. Owing to the long journey and numerous transfers, it was in very bad condition; yet the two hundred workers, still alive, were able to defend their queen when placed in the midst of a colony of Dalmatian bees, which race is even much more energetic than the Italians. A thousand of the Dalmatian bees were killed in this encounter, though strange as it may seem, not a single one of the Cyprians was vanquished.

Mr. Cori states that the Cyprians have shown their superiority in wintering, as also have the bees from the Smyrnian coast, adjacent to the Island of Cyprus. The climate of Northern Austria, (Mr. Cori's latitude is about 50° 30' N.) is quite similar to that of our Middle States, hence the new races of bees have been subjected to winters as severe as those ordinarily experienced in our Northern climate.

The original insects imported from Cyprus, says Mr. Cori, were smaller

than the common black bees, but the young ones bred in Europe, are much larger, and build larger cells than the common bees. The Cyprian workers have a succession of double rings, of an orange yellow color, around the abdomen. Their disposition is very mild. The queens are prolific. The drones have one yellow circle around the abdomen, and their sides are mottled.

The statements concerning these bees, made by a man occupying the position of a Chancellor in the Government of Bohemia, ought certainly to be trustworthy.

Apiculture has risen rapidly since the Italian bees were brought here fifteen years ago, and we all know that much of its progress is due to their introduction. Who knows but that another new and superior race would work new wonders? Perhaps even that vexatious question—wintering—can thus be settled.—[B. K. Magazine.

According to the new regulations recently issued by the authorities of the German Empire, no hives of bees are to be placed nearer than 93.5 meters to any turnpike or public thoroughfare, and no nearer than 46.7 meters from other carriage ways; and for violating the above rules, the person convicted may be fined twenty thalers, or be subjected to imprisonment.

Mr. David Staples, a great bee man, has the management of 250 colonies of bees for R. G. Harris, 80 for C. C. Vaughn, 40 for W. J. Andrews, 100 for L. R. Cullen—making 470 colonies all together.—[Herald and Mail, Columbia, Tenn.

Notes and Queries.

E. A. Sheldon, Independence, Iowa: "I started this spring with 42 stocks, and have increased to 108, all in good condition for winter; and have taken 1,025 lbs. surplus honey. It has been very cold and wet here this year—a poor year for honey."

J. R. Lee, Oxford, Ohio: "This has been a remarkably bad year for bees in this section. We had a heavy freeze in the spring which destroyed all the fruit blossoms; and the white clover produced but very little honey on account of the excessive rains, which amounted almost to a flood, sufficient to wash the honey out of the plants. The consequence is, bees here will have to be fed this winter, or lost."

S. H. Hutchinson, Mechanics Falls, Maine: "We have had a poor season in my locality for surplus; but very little taken. Bees have swarmed well enough, but stored no surplus, as a general thing, in this section. I started with three stocks last spring, and have increased to nine, all in fair condition."

T. B. Parker, Goldsboro, N. C.: "Being desirous of information, I will ask a question through the WORLD, and hope that you or some of your readers can give me the desired information. I shall certainly consider it a favor, and will be thankful to any one who will answer through the WORLD, or otherwise.

I have heard that mountain laurel, or wild ivy, secretes a poison honey which bees gather, and if any one

should eat of that honey it would poison them, and sometimes fatally. Now I want to know if that is true, and if they work on it under any and all circumstances? If not, when do they work on it? Also is there any way to tell the poison honey except by eating it?

This county is a poor one for honey—in fact, the most of the eastern counties of our state, that are not on the large rivers or the marshy parts of the State, are. And in view of that I visited the western part of the State, and found excellent bee range at the foot of the Blue Ridge Mountains; and I also found the mountain laurel.

Now for advice; would you swap a poor place for honey, for a good one, and risk the poison honey? Any light on the subject will be appreciated.

I saw in some publication not long since, that for a colony to keep drones longer than usual was a sign of a poor queen or some disease, at any rate not a sign of thriftiness. I want to know if such is your experience. I have two hives with drones in abundance; both Italian. The oldest queen was raised last season, the other this season. They are as well filled with honey as any of my hives, and have as many bees. They also seem to be more industrious than any hives that I have, consequently I cannot see that drones are a sign of any disorder, or anything else bad. Enclosed find a sprig of two different weeds; bees are just beginning to work on them, and will continue till frost. I think they yield considerable honey, and of fair quality."

[As to changing your place of residence for a location better adapted to honey raising, we see much in its favor; but whether the proximity of the

laurel to your proposed apiary would seriously affect honey, is a question we are unable to decide. Is there no one in the vicinity of your proposed location who could inform you of its effects?

When colonies are thriving and gathering honey, during the warmer months, they are rarely without drones, and in such cases it's a sign of a good queen (provided they have brood in proportion) instead of the contrary.]

M. Parse, Pine Bluff, Ark.: "From 52 stocks last spring, including nuclei, I increased to 138, and took 3,450 lbs. extracted honey, and a little box honey. Received an imported queen from Dadant & Son, to breed from next season. Would recommend them as fair dealing men, but not so with Mrs. T. I sent her \$10 last year for a queen, which came dead. She promised another, but she failed to comply, and does not even answer my letters."

[Although the above is taken from a private letter, we take the liberty to publish it, in justice to Messrs. Dadant & Son, as well as all other honorable breeders, who have been placed in competition with the lady mentioned. We withhold the full name, as we are not authorized to publish it, but a great many will recognize the person from experience of a like nature which they have had with her. We are in possession of letters from almost every State in the Union of the same import as the above, but her sex has saved her from the punishment she deserves. We advise her in all kindness to drop queen breeding as a profession, and devote her talents to a business that has fewer temptations in it.]

MOON'S BEE WORLD.

A. F. MOON & CO.,

Cor. Broad and Elm streets., Rome, Georgia.

OCTOBER, 1875.

TABLE OF CONTENTS.

Standard Firms, &c.—Byrd	275
Notes from Pointe Coupee, La.,—Kush	270
Rational Bee Culture, Pursued with fixed Comb, for the Convenience of those who use Country Hives.	278
Will the Pollen and Honey of the Yellow Jasmine poison Bees—Brown	280
Letter from North Mississippi—Baker	281
Notes from Bartow county, Ga.,—Devitte	282
Letter from Shelbyville, Ill.,—Johnson	282
Sketches from Tennessee—McLean	283
Introducing Queens to Queenless Stocks	284
Preparing Bees for Winter	285
Wasps and Bees	286
A trip among the Bee Keepers.	288
Foreign Intelligence	289
Profit	290
Chips from Sweet Home—Palmer	292
Surplus honey and Care of Bees	294
Bee Culture in Maury county, Tennessee	294
The Cyprian Bees	297
Notes and Queries	298
Editorial	300

THE signs would seem to indicate that winter will set in early this year; at any rate it is best not to be behind hand with our preparations for safely wintering our bees, and in view of this advise our readers to commence operations at once. The directions in August number, by Dadant, will, if carried out carefully, save nearly, if not all, your colonies. We have devoted considerable space in this and previous numbers to directions for winter feeding and general management, with the hope that our readers will not forget that a liberal attention now will be almost sure to bring a liberal return next year. All who intend to purchase queens next season should be ready to do so as soon as the weather would permit. Find your strongest colonies, keep them stimulated, (which you can commence doing

before the queen is purchased), and have them ready to secure the harvest when it comes, whether early or late in the season.

The prices for Italian queens will probably be such as to allow all to purchase who desire to. A perusal of our advertising columns will disclose a list of breeders that can be relied on for honorable dealing. Almost every number of the BEE WORLD will contain directions for introducing queens, and raising, also.

Another year will also, in our opinion, pretty nearly discover the best general method of wintering. At present we have wintering on summer stands, in houses, cellars, hot beds, cold frames, etc.; but we see no reason why one method cannot answer for all bee-keepers, in corresponding climates. We have but a few bee-keepers that can winter bees successfully, and they are the ones that are making the money. They make no secret of their management, on the contrary is often published, and commented upon. Let us have a still better showing for 1876 than the present year.

—o—

T. N. Hollett has sent us a box of Cyprian bees, taken from a colony he recently imported. The venture was a failure, as they were all dead when they arrived; but (although from being dead an accurate idea of their size could not be formed), we were most favorably impressed with them. They are beautifully marked. We publish an article setting forth the merits of these bees, this month, which shows that they will prove a valuable acquisition to our apiaries; and even hints that they may eventually supersede the Italians.

We see by the Herald and Mail, Columbia, Tenn., that Mr. David Staples and W. J. Andrews have formed a partnership at that place, to establish an apiary. Mr. Staples has been a correspondent of the BEE WORLD, and Mr. Andrews is Secretary of the Maury county Bee Keepers Society, thus making a success of the enterprize almost certain, as they are both practical bee-keepers.

Our September number was mailed to its subscribers in due time, but we are constantly receiving letters stating that it has not made its appearance. To such we have mailed a second copy, but the supply is almost exhausted.

Dr. Davis writes us that, owing to the great amount of sickness in his vicinity, he has been unable to keep up his correspondence. He promises an article for November.

The National Exposition, held at this city this month, was a success as far as a good exhibition could go; but owing to unpropitious weather it was not a financial success.

Travelers who stop at Dalton can find good fare and good accommodations by stopping at the Duff Green House.

We will send all four of the Bee Journals of America, to one address, for \$5.00.

John K. McAllister & Co., have added beeswax to the articles they wish to purchase. See change in advertisement.

See change in the advertisement of Messrs. Dadant & Son.

WANTED.—The undersigned desires a situation as Superintendent of an Apiary, in this or any adjoining State. Can give reference.

T. S. HALL, Plainwell, Ga.

PROSPECTUS FOR 1876 OF THE "MONTREAL WITNESS"

The friends of healthy literature have, by persevering diligence, placed the MONTREAL WITNESS in the very first rank of newspapers. The rapid growth of trashy reading, and of what is positively vile, is stimulating good people to more earnest efforts than ever to fill every household with sound mental food. A clergyman has lately secured for the WITNESS hundreds of subscribers, and declares his intention to make this one of his first duties in his present and every future field of labor, as he holds that by no other means could he do so much for the future of a neighborhood as by placing good reading in every family. Successive attacks upon the WITNESS during each of the past three years, culminating in what has been called "The Ban" of the Roman Catholic Bishop of Montreal, although not otherwise desirable circumstances, have done a great deal to concentrate and intensify the zeal of the friends of temperance and religious liberty in favor of the WITNESS. Indeed, the fact that the last assault has been followed up for six months with the most untiring efforts to break down the paper on the part of the most powerful moral opposition that could be organized on earth, and has resulted in cutting us off from some, at least, of those Roman Catholic readers whose good will we formerly enjoyed and highly prized, gives us, perhaps, some claim on the kind offices of those who value free speech and freedom of religious belief. The actual diminution of the circulation of the DAILY WITNESS is, of course, comparatively small, amounting to about 500 out of 13,000, or less than 4 per cent., and does not affect us pecuniarily, as we can still claim a circulation equal in volume to that of all the rest of the daily city press, probably the majority of our old Roman Catholic readers being such still.

If this comes to any who are not familiar with the WITNESS, we may say that for 29 years it has labored for the promotion of evangelical truth, and for the suppression of the liquor traffic. Our effort is to produce a Christian Temperance Newspaper, unattached to any political party or religious denomination, seeking only to witness fearlessly for the truth and against evil-doing under all circumstances, and to keep its readers abreast with the news and the knowledge of the day. It devotes much space to Social, Agricultural and Sanitary matters, and is especially the paper for the home circle. It is freely embellished with engravings.

The *Weekly Witness* has been enlarged twice and nearly doubled within four years, and is the very most that can be given for the price, \$1.50 per annum.

The *Montreal Witness* (Tri-Weekly), gives the news three times a week, and all the reading of the *Daily Witness* for \$2.00 per annum.

The *Daily Witness* is in every respect a first class daily, containing much more reading matter than the papers which cost twice as much for \$3.00 per an. All post-paid by Publishers,

ADVERTISEMENT S.

Publisher's Department.

ADVERTISING RATES.

SPACE.	1 Month	2 Months	3 Months	6 Months	1 Year
1 Page	16 00	30 00	40 00	70 00	125 00
3-4 age	12 00	20 00	30 00	55 00	80 00
1 Column	10 00	18 00	25 00	45 00	75 00
3-4 Column	8 00	15 00	20 00	35 00	70 00
1 1/2 Column	7 00	12 00	18 00	25 00	50 00
1-3 Column	6 00	10 00	15 00	20 00	30 00
1-4 Column	5 00	8 00	12 00	16 00	20 00
1 Inch	2 50	4 00	6 00	9 00	15 00
1-2 Inch	2 00	3 00	5 00	7 00	12 00

Fourth page of cover, double rates. Third page of cover, 50 per cent added to rates. **WORLD** included in all advertisements of eight dollars and over. No advertisements continued longer than ordered. Bills of regular advertisers payable quarterly; transient in advance. Address all communications to **BEE WORLD**.

BEE-KEEPER'S

DIRECTORY

Cards inserted in this Directory, and a copy of **THE WORLD**, one year for twelve dollars—cards to be four lines or less. For each additional line one dollar will be charged. Each line will average eight words.

IMPORTED BEES CHEAP!

As we have more Imported Bees than we care to win er, we offer to the bee-keepers of the South

20 IMPORTED QUEENS

In large nuclei, with frames of brood, honey to be delivered in October and November

FOR THE LOW PRICE OF \$12.00 EACH.

First come first served.

CH. D. DANT & SON, Hamilton, Ill.

HONEY

AND

BEESWAX.

Bought for Cash.---Highest Prices Paid.

Address John McAllister & Co.,
 49 E. Harrisou St., Chicago.

The Best Paper for Farmers,

N. Y. WEEKLY TRIBUNE

ONE DOLLAR per year in clubs of thirty or over. Specimen copies free. For terms and commissions, Address **THE TRIBUNE**, New York.

HONEY EXTRACTORS!

MADE ENTIRELY OF METAL.

NO WOOD ABOUT THEM.

PRICES \$8.50 TO \$10.

Circulators with directions for use on Application

In ordering, be particular to give us *outside dimensions* of frame or frames to be used. As we have procured the machinery for making every part on our own premises, we can supply Gearing, Honey Gates, Wire Cloth, etc., etc.; Bearings, Stubs' Steel—Boxes, self-oiling.

A. I. ROOT & CO., Medina, Ohio.

P. S.—Be sure and give width, *under* top bar of frame.

AGENTS WANTED.

A Library in one Book!

The wisest and most brilliant literary gems of three thousand years, selected from more than

500 Authors, Poets, Reformers, Theologians, Statesmen, Philosophers & Wits.

Whose genius has illumined the world. This new **CYCLOPEDIA OF THOUGHT** is arranged by topics in illustration of the GOSPEL STORY OF CHRIST, printed for reference at the foot of the page. Other Special Features of this remarkable book—entire

CHRIST IN LITERATURE.

are given in our circular. The book is edited by

EDWARD EGGLINGTON, D. D.

is handsomely illustrated, and is in all respects an elegant and valuable work. Clergymen, Teachers, Agents, all who wish to earn MONEY, should apply immediately for terms and territory to J. B. FORD & CO., Publishers 27 Park Place New York. 1114

Crampton's Imperial Soap IS THE BEST.

This Soap is manufactured from pure materials and as it contains a large percentage of Vegetable Oil, is warranted fully equal to the best imported Castile soap and at the same time possesses all the washing cleansing properties of the celebrated German and French Laundry Soaps. It is therefore recommended for use in the Laundry, Kitchen and Bath-Room, and for general household purposes; also, for Printers, Painters, Engineers and Machinists, as it will remove stains of Ink Grease Tar Oil, Paint etc. from the hands. Manufactured by

CRAMPTON BROTHERS.

**2, 4, 6, 8 and 10 Rutgers Place,
& 33 & 35 Jefferson St., N. Y.**

12m6

WANTED. We will give energetic men and women

BUSINESS THAT WILL PAY.

from \$4 to \$8 per day, can be pursued in your own neighborhood, and is strictly honorable. *Particulars free*, or samples worth several dollars that will enable you to go to work at once, will be sent on receipt of fifty cents.

Address **J. LATHAM & Co.,**
 P.O. Box 2154. 419 Washington St. Boston Mass