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MOON'S BEE WORLD,

—A GUIDE TO—

BEE-KEEPERS.

VOLUME 2. DECEMBER 1874. 75 NUMBER 1

CORRESPONDENCE.

NORTH AMERICAN BEE- KEEPERS' CONVENTION.

FOURTH ANNUAL SESSION OF THE NORTH AMERICAN BEE KEEPERS' SOCIETY, HELD AT PITTSBURG, PA., NOV. 11, 1874.

Yesterday morning the fourth annual session of the North American Bee-Keepers' Association commenced at Germania Hall, corner of Wood street and Diamond alley. The society, it is said, numbers between three hundred and four hundred members, but not over one hundred were present yesterday. The last annual meeting was held at Louisville, Ky. At 10 o'clock President Hoagland of Mercer, called the convention to order. Nothing of importance was transacted during the forenoon, and the meeting was of a rather an informal nature. On motion a committee, consisting of Rev. W. F. Clarke, H. A. King and Mrs. E. S. Tupper, was appointed to prepare business for the afternoon session and suggest topics for discussion. After the appointment of a couple of gentlemen to assist Mr. Abner J. Pope, the Secretary, to prepare the proceedings of the session for publication in pamphlet form, the Society adjourned until the afternoon session.

AFTERNOON SESSION.

When the Society met again in the afternoon, President Hoagland opened the proceedings by delivering the following address:

LADIES AND GENTLEMEN OF THE AMERICAN BEE-KEEPERS' SOCIETY:

Not being present at the last annual meeting at Louisville, Ky., I would embrace the present opportunity of thanking you for the honor you have conferred upon me, in selecting me to preside over your deliberations. Any errors I may commit, I hope you may attribute to the right source—the head and not the heart. Bee-keeping, although not so popular a pursuit as many others, is none the less edifying and profitable. The honey bee is al-

most the only insect that has been domesticated by man, and aside from its giving us wealth and delicious luxury, it possesses many charms, and is a study for the naturalist. This is only the fourth session of a continental society in our land for the purpose of investigating and learning of the wonders of this little insect. For ages past, organizations have been effected by our best men to develope the various agricultural resources of the land. And during the same period the most industrious bees of our continent have been consigned to the ignominy of a death by fire and brimstone. If apiarians had given the time and attention in selecting the males and females of the largest and most industrious, prolific and docile colonies to breed from, with the same care, shrewdness and attention that has been practiced with horses, cattle. sheep, hogs and poultry, we would not be under the necessity of importing queens from Italy, but would have a race of bees much superior to the Italians. Man cannot obtain labor from any other source as cheap as from the honey bee. They work for nothing and board themselves. Only requiring house rent free. According to the census returns of 1850 the amount of wax and honey produced in the United States was 14,853,790 pounds; in 1860, 126,386,855 pounds. With the increased attention given to the pursuit, together with the increase of colonies, we have no doubt but the present returns will show a vast increase of product. Possessing, as we do in America, a genial climate and a fertile soil, susceptible of the production of richly varied honey, producing plants and flowers, with a due degree of knowledge and enterprise, the bees could be increased to an extent that the profit arising therefrom would pay all our taxes, and supply our tables daily with one of the choicest luxuries of life. Many of the best men of our land are now employed in acquiring practical knowledge of the nature and habits of the honey bee. The science is advancing steadily, and the future is big with developments in apiarian pursuits.

From the temporary Business Committee, Mr. King presented the following report:

1. That the election of officers be deferred until to-morrow, to take place at a time to be designated by the Business Committee.

2. That the following topics be discussed this afternoon: First—"Advantages of Bee-Keeping." Second—"How is the Queen produced from the Worker Egg." Third—"The Sting of the Honey Bee," to be introduced by a paper by Rev. W. F. Clarke. Fourth—"Securing swarms," to be introduced by President Hoagland. Fifth—"Adulteration of Honey," to be introduced by a paper from Rev. H. A. King.

The report was adopted and Mrs. Tupper, who is a very fluent and pleasant speaker, introduced the first topic on the list. She said she could not imagine why she had been called upon to open the discussion on this topic, unless it was for the reason that females are supposed to be always ready to say something, whether they can talk to the point or not. She then proceeded to state some of the advantages of bee-keeping, and claimed that it was not only profitable, but that the presence of bees in and about orchards and vineyards, tended to increase the yields from vines and trees. In support of these the lady referred to observations made by herself. She also

claimed that bee raising was specially advantageous to ladies, who were thus afforded not only pleasant and profitable occupation, but also gave them out-door work, and thus benefitted their general health. She spoke briefly on the question of profit, and claimed that there was no other business which offered such strong inducements to those who wished to make money. The question was further discussed by other members, and many interesting, and to an experienced man novel and entertaining ideas were evolved. The other topics were all taken up in their order and disposed of, the members generally participating in the talk. Regarding the sting of the honey bee Rev. W. F. Clarke read a very valuable and instructive paper, in which he stated that it is a subject that has been much neglected by the authors of treatises on the bee and its habits. He then gave a detailed account of the formation of the sting and of the manner in which the insect injects poison into whatever attacks it. He claimed that in proportion to its size the bee is the best armed and most formidable of any living thing.

President Hoagland told his experience of the best way to secure swarms of bees.

Mr. Pope said he had frequently got swarming bees into their hives merely by whistling, and attributed his success to the supposition that his whistling must resemble the humming noise made by the bees.

Mrs. Tupper thought it better to go directly to the root of the matter and prevent swarming, which she was of the opinion could be done with care and attention.

The supper hour having arrived, the Society adjourned, after appointing the following committee to prepare business for the evening session. H. A. King, W. F. Clarke, Mrs. E. S. Tupper, D. L. Brown, A. Chapman, Aaron Benedict and J. W. Winder.

EVENING SESSION.

At seven o'clock the Society re-con vened, when the Business Committee submitted the following subjects for discussion during the evening:

1. Queen raising; the best mode of introducing queens into frame and box hives, and drone preservation.

2. Adulteration of honey.

3. Moving bees to other localities for wintering or pasturage, suggested by the question, "Would it be practicable and profitable to ship bees in the fall by boat from Eastern Ohio to some point on the Mississippi river, in Louisian, to remain, say until May, returning by rail in time for clover bloom?"

4. Best method of inducing queens to breed late in the fall, and is it wise to resort to it?

5. Bee forage, with special inquiry, "Can bee keeping, as a business, be successfully prosecuted in a locality producing a large amount of white clover, but no other source except locust and fruit bloom in spring?"

6. Wintering bees under glass.

7. Prevention of honey candying.

8. Suggestions to the Business Committee of the time and place for the next annual meeting.

The first topic was discussed over an hour, and nearly all the members participated in the debate, as the subject seemed to be one of peculiar interest. The second topic was to have been introduced by the reading of a paper by Mr. H. A. King, but the gentleman being absent, it was skipped. Regarding the removal of bees

to other localities, Mrs. Tupper related an instance of the experiment of a friend of her's, who removed his bees on a boat to Northern Iowa, and during the journey they not only thrived well, but appeared to enjoy the trip, and three harvests were reaped from them in that one season. She said they were well taken care of, preserved from the heat of the sun during the day, and allowed to fly about for three hours every evening.

Mr. Brown of Tennessee, said it required more to feed bees in the South than in the North.

Mr. Chapman was of the opinion that the expense of removing bees to the South would more than overbalance the profit.

Mr. Rush said that in Washington county last winter, of the colony of bees kept in his cellar, it required about forty pounds of honey to keep them through the winter, and about twenty-five pounds to feed the colony kept outside. The increased consumption on the part of the cellar bees he attributed to the fact that they brought forth a young brood in the spring, while the other colony did not. He stated that in correspondence with a couple of Southern gentlemen, he had learned that in the localities of Shreveport, La., and Marshal, Texas, it only required from eight to fifteen pounds to feed a colony through the winter. After some further discussion this topic was dropped, and the next taken up.

As to the best method of inducing bees to breed late in the fall Mrs. Tupper said her experience showed that changing the Queen bee to a strange hive was beneficial, inasmuch as the eggs deposited by her were better cherished and cared for. She also read a letter from J. P. H. Brown of Augusta, Ga., who regretted his inability to be present, but suggested to the society the propriety of instituting a series of experiments with the object of improving the bee pasturage of our country. Steps, he said, should be taken to have yearly reports made from various points, of the honey producing trees, plants and shrubs, and what will pay best to cultivate and plant, with the least labor and expense. In such reports, the soil, climate, hardiness of plant, time and duration of flowering, does it yield both honey and pollen, or does it possess any one of these properties, should always be stated. In consideration of the importance of the questions, Mr. Brown suggested that they be referred to standing committee.

The letter was referred to the Business Committee, and on motion of Mr. Clarke the remaining undiscussed topics were temporarily laid aside, except the last one, which was taken up, and a large number of places were suggested as good locations for holding the next annual meeting. Among them were Des Moines, St. Louis, Columbus, Cleveland, Toledo, Chicago and Cincinnati. Some further talk of rambling character followed, when the Society adjourned to meet again at nine o'clock next morning.

SECOND DAY—MORNING SESSION.

The Association met at nine o'clock, President Hoagland in the chair.

The following Publishing Committee was appointed: Messrs. Pope, Rush, and Mrs. Tupper.

The report of the Business Committee, giving topics for the morning discussion, was presented, the first being the question of "Adulterated Honey."

Upon this subject, Mr. King of New York, read an interesting paper, from which we extract the following concerning the effect of honey adulteration upon the honey producing interests of the country.

"A leading honey merchant of New York, who bought largely of the comb honey of Mr. Harbison's great 100,000 pound honey crop, said (and I have it from his own lips) that he refused to purchase the extracted honey, because he could furnish a better article by making a syrup of white sugar and adding, to flavor the mixture, one gallon of honey to every seven gallons of this syrup, costing only eight or ten cents per pound. He said if the syrup was heated to the boiling point, so as to dissolve all the particles in the sugar, the mixture would not granulate.

But what will be the effect upon the price and sale of extracted honey when the dealer increases every 1,000 pounds to 8,000 to flood the market? If one third of the 300,000 pounds referred to be treated in this way, 100,000 pounds would be increased to 800,000, which would no doubt glut the market, and greatly reduce the price. But this is not the worst feature in the case. Dealers in New York and Chicago have resorted to the use of glucose as a substitute for sugar syrup, as others have done in the manufacture of golden syrup. Glucos is a liquid which is often made as clear as water, and of about the consistency of honey, though less sweet than cane sugar.

Messrs. A. Boyer & Co., whose address is Auberville, per Paris, France, are large manufacturers. Glucose is found in the juice of several kinds of fruit, but is usually manufactured from starch or dried grapes. But will the evil stop here, or will glucose, which costs from six to eight cents per pound, soon become too expensive, and acids be used in its stead? Then will extracted white clover honey go begging for purchasers, and even buckwheat honey, though darker, and therefore commanding a better price, will be of dull sale, as these ingenious dealers can color their mixtures to look like the darkest buckwheat honey."

As to a remedy for the evils complained of, the speaker said:

"Perhaps apiarians will conclude to dispense with the extractor and think to remedy the evil by raising and selling only bad honey or comb honey in the frame. But these dealers have already found a remedy for such a contingency. They now sell most of their —honey shall I call it—no, mixture, in glass jars, with one or more narrow strips of honey in the comb, which occupies but little space in the jar, but looks well, and sells the mixture with which the jar is filled.

I can suggest no remedy but education. We must educate the people, and thus qualify them to judge between a pure article and an impure article. Apiarians must write on the subject, not simply for their journals, but for the city press, both secular and religious. While earth remains in its present state, evil men, as the Apostle says, shall wax worse and worse, but when Paradise is restared, that land flowing with milk and honey, these honey adulturers shall go into their 'own place' and trouble us no more."

Mrs. Tupper stated, after the reading of the paper, that she had extracted honey to sell and received orders from honey dealers requesting empty

white combs to mix with syrup as extract of honey.

After some further discussion, Messrs. King, Hoagland and Benedict were appointed a committee to draft resolutions expressive of the judgement of the Association against the practice of adulterating honey.

The next topic of discussion was "Bee Forage," and was debated at some length. Some of the members expressed themselves as in favor of buckwheat, others white clover. Mr. Hoagland thought the forest was the great home of the bee. The richer the soil the greater would be the amount of honey extracted from the flower. The discussion as to the value of various flowers for bee forage, was continued at some length, and was quite interesting. The sunflower, sassafrass, the purple aster, and any quantity of flowers had their respective merits for food for honey thoroughly demonstrated.

The third topic reported by the Business Committee was "The wintering of bees under glass." This was discussed at some length, and the experience of different members of the Convention related.

"The best method of preventing honey from candying" was next discussed at some length, after which the Association adjourned till 2 p. m.

AFTERNOON SESSION.

The Association met at 2 o'clock p. m. The first hour of the session was occupied in the exhibition of patent beehives, honey extractors, and some fine specimens of honey.

ELECTION OF OFFICERS.

At the expiration of the hour, the President said that the election of officers had been made the special order for three o'clock to-day.

The Secretary said it would be well to first fix upon the place of holding the next meeting, so that the President could be selected from that locality. In return for the honor of the honor of the position he should have the pleasure of doing all the work pertaining to annual meetings.

Mr. Clarke demurred to the Secretary's views. He thought the President should not be burdened with all the work, and that officer should be chosen without reference to his place of residence.

The Association, on motion, went into an election for officers, when the following gentlemen were named for President: W. F. Clarke, H. A. King, Aaron Benedict, Abner J. Pope, J. W. Winder. The balloting resulted in Mr. Clarke receiving the highest number of votes, but not the number necessary to a choice. Mr. King, who had the next highest choice, moved that the President be authorized to cast the vote of the Association for President. The motion was carried unanimously, and Mr. Clarke was thereupon voted for and elected.

Next in order was the election of a Vice President from each State and Territory. The following persons were chosen: Pennsylvania, Seth Hoagland; Ohio, A. Benedict; West Virginia, A. Chapman; New York, M. Quinby; Tennessee, M. Benton; Indiana, A. J. Pope; Illinois, F. Drabbe; Iowa, Mrs. Ellen S. Tupper; Ontario, Dr. Thom. In the States not represented at this meeting, Vice Presidents will hold over.

E. L. Brown of Indianapolis, was elected Recording Secretary, and E. S. Hill of Ohio, Treasurer.

For Corresponding Secretary, Abner J. Pope, of Indianapolis, and H. A.

King of New York were nominated. While the ballots were being prepared, the members indulged in a humerous discussion of the relative merits of the candidates. As a set-off against the "infallibility of the Pope." it was stated that a "King could not do wrong." A member said that it was a bad ticket for a republican people to choose from, and many other observations of a similar nature were indulged in.

The balotting resulted in the election of Mr. King.

The report of the officers of the Association for the past year were read and approved.

Mrs. Tupper, from the committee appointed to make arrangements for a display at the Centennial in 1876, reporteduthat the committee had arranged for space, &c., at the Exposition, and that everything bid fair for a successful display. On motion, Seth Hoagland was added to the committee.

The Association adjourned till 7 o'clock p. m.

EVENING SESSION.

The Association met at half past seven o'clock, and Mr. Seth Hoagland, the retiring President, delivered his valedictory address, in which he said that he left the chair of presiding officer, not in sorrow, but in a joyful mood.

Mr. W. F. Clarke of Ontario, Canada, President elect, was then introduced, and spoke as follows:

LADIES AND GENTLEMEN OF THE NORTH AMERICAN BEE-KEEPERS' ASSOCIATION:—I thank you very sincerely for the honor you have done me for the second time in electing me to the Presidency of this organization. As the retiring President observed, in the brief remarks which he made, the times are stringent and there have been unusual difficulties in getting up this meeting, and in view of the difficulties which the retiring President has experienced in this respect I hope we shall draw up a resolution at some later stage of our proceedings expressing our appreciation of his course and our thanks. I am not vain enough to suppose that I owe my elevation to the presidency of this society to my knowledge of apiculture or to my unprecedent success as a bee-keeper. I think I owe my present position to two causes. First, that I have taken an interest in this society from the outset, and secondly, that I have not had any particular selfiish interest in this society. This society in its start encountered peculiar difficulties which rendered it rather surprising that it should have weathered them all and come out into smooth open water as it has done.

It is true that this is a day of small things in this organization, but we have made considerable progress. We have, I think, escaped the greatest danger that menaced us at the outset —the danger of the society being made use of for other than broad dis interested purposes. Bee-keeping has made considerable progres during the history of this society. It has advanced out of what might be called the "slough of patents." Many lessons have been learned about patents which will never be forgotten.

Every business is likely to be traded upon by King Humbug. P. T. Barnum has said that mankind liked to be humbugged. Whether they like it or not, they submit to it.

An educated physician once said to a quack: How is it I have so small a parctice and you have so large a one?" "Well," said the quack, "how many

people who go down street are really wise peeple?" "Well," said the educated physician, "perhaps one in fifty that pass our office are wise people." "Then," replied the quack, "you get the one and I get the forty-nine."

Whether the same philosophy does not apply to a good deal of the quackery we have had in connection with bee-keeping I leave with you to judge. We have some principles pretty well established, which I think ought by this time to be pretty well understood. Leaving the movable comb principle and the air chamber, and one or two other conditions of successful bee-keeping out of sight, the rest is not of much account. Those who like complicated hives with all kinds of fixings, can have them. We know bees are not particular, and will store honey in rough hives properly constructed as well as in the most finely adorned palaces ever constructed. We have learned a great deal about moth traps and other things, and those who have traded in this kind of apiarian Empyrean articles have shrunk away, and our society has done much to consign them to the grave they have chosen. Empyrean patents have been ignored, and this society has done much to spread abroad throughout the land the fundamental principles of apiarian culture. Although the society has not done as much as some hoped for it, it has done much. It has brought bee-keepers together and awakened an interest in the science of apiculture, but what we want in this society is to gather together all the apiarians of this country and make this a grand institution in the diffusion of a correct knowledge of apiculture. To do this we must find some means of bringing together our best apiarians.

I do not undervalue the influence of this society in the place when it meets from year to year, In all the different cities where its various sessions have been held an interest has been unquestionably awakened. But we want to do good upon a large scale. This society shall embody the wisdom of all our apiarians upon the subjscts submitted to us. Some measures ought to be taken by which we can accomplish this result. I know of no better method to secure this result than by organizing auxiliaries to this society in every county, State and neighborhood. Pecuniary difficulties operate undoubtedly against our having as full a representation as we should have at the meetings of this society. There are many to whom apiculture is a sort of side business. Some go into it because of the interest they take in the subject. I have never been so situated that I could keep bees with an eye to profit. Yet, I have been well paid for my trouble in the interest in the interest in the pursuit. Let an interest be awakened in the minds of the public by lectures and all other legitimate means.

In conclusion, the speaker said the society had a great work before them, and it could be accomplished if they only did their duty. The rubicon had been passed, and this Association had a great work before it, and the speaker could only say that in the position he had been elected to fill, he would, with the assistance of the society, endeavor to promote the interests of apiculture on the North American continent.

RAISING QUEENS.

The first topic of discussion for the evening was then taken up. It was: "The Selection of a Plan to raise

Queens."

Mr. A Chapman had had the subject on his mind for some time, and thought it was worthy of notice.

Mr. Benedict thought the way Queen raising was now carried on was very uncertain, and more attention should be paid to the subject.

The topic was then discussed at considerable length, the details of taking care of Queens and managing them as shown by the experience of a large number of persons being given.

THE NEXT MEETING.

The following Committee on Business was appointed: Messrs. King, Clarke, Benedict, Brown, Winder and Mrs. Tupper.

During the absence of the Committee Mr. Rush read a recipe, which he had in his possession, to prevent honey from candying and souring.

Mr. King, from the Business Committee, reported in favor of Toledo, Ohio, as the place, and the first Wednesday of December, 1875, as the time for holding the next annual meeting. The report was adopted and the time and place fixed accordingly.

The following committee was appointed to report to-day (Friday) on the question of breeding pure Queens and stock: Messrs. King, Benedict, and Mrs. Tupper.

The Association then adjourned to meet at half-past eight o'clock to-morrow morning.

THIRD DAY—MORNING SESSION.

The Society met at half-past eight this morning.

The proceedings were commenced with a discussion of the best mode of keeping bees through spring, followed by informal talk on various topics pertaining to bee culture.

HONEY ADULTERATION.

The Committee on Adulteration of Honey presented the following report, which was unanimously adopted:

WHEREAS, It has come to our knowledge that certain honey dealers in New York and Chicago are using large quantities of sugar syrup, or glucose, with which they mix a small quantity of honey and sell the whole for pure honey, thus making 1,000 pounds of honey sell for from 3,000 to 8,000 pounds, and

WHEREAS, We, the North American Bee-Keepers' Society, in annual session assembled, believing that the adulteration of honey can tend only to the ruin of the honey producing interest of the country by overstocking the market, reducing prices, ultimately lessening the consumption and dishonoring our calling, as well as their own, therefore,

RESOLVED, That we hereby express our unqualified condemnation of the course of these honey dealers, and hereby notify them that they must cease to adulterate honey and assure us of the fact, or, for self-protection, we shall be compelled to publish their names and expose them to deserved contempt. The committee advise honey producers to sell no honey to dealers guilty of adulterating. The committee recommend the appointment of a Standing Committee, authorized to communicate with honey dealers, and take such action as they may deem necessary to carry out the spirit of this resolution.

H. A. KING,
E. S. TUPPER,
SETH HOAGLAND,
A. BENEDICT,
W. F. CLARKE,
Committee.

The Chairman of the Committee on Resolutions submited the following:

IN MEMORIAM.

WHEREAS, This Society has sustained a great loss since its last annual meeting, in the death of the late Dr. T. B. Hamlin of Tennessee, one of its Vice Presidents; we desire to put on record the high estimation in which the deceased gentleman was deservedly held by his fellow-apiculturists for his thorough knowledge of the science and art of bee-keeping; the zealous interest manifested by him in this organization, from its inception up to the time of the annual meeting, shortly before his death, at which he worthily presided in the unavoidable absence of the President; and, finally, for his upright character, urbane manners and kindliness of heart. Honor to his memory, and peace to his ashes!

THANKS.

RESOLVED, That the thanks of this Society be, and are hereby presented to ex-President Hoagland, for the interest shown by him in the prosperity of this organization, and for his efficient, courteous and praiseworthy occupancy of the chair.

RESOLVED, That the thanks of the Society be tendered to the railroad companies and hotel-keepers, who have encouraged attendance at this meeting by a reduction of their usual rates.

RESOLVED, That this Society, having receved in every city where it has met, the most polite and kind attention from the local press, is pleased to find the members of the fourth estate in Pittsburg not a whit behind the fraternity elsewhere; and, for their patient attendance, courteous behavior and excellent reports of our proceedings, we desire to tender them our best thanks.

AUXILIARY SOCIETIES.

RESOLVED, That any and all the officers of this Society are hereby authorized to organize auxiliary or branch societies, membership in which shall carry membership in this Society; provided always that the membership fee shall be one dollar annually, and one-half thereof shall be payable into the treasury of this society.

NEXT ANNUAL MEETING.

After the transaction of some further routine business, the convention adjourned to meet in Toledo, Ohio, in December, 1875.

REVIEW.

BY JEWELL DAVIS.

MR. EDITOR:—Friend Rambo, with his lot of "Broken Pieces, etc.," is again on the docket for consideration, and in the first place I will say to him that is my intention to handle all quite "tenderly." Well, next I am astonished at your exclamation, "What! feed bees in August?" Your reply, "No sir." I say yes. And why not? If your horse or cow was suffering for food would you not feed them in August? If so, why not feed your bees, to make them prosperous? The promise of a good time next year will not supply their present needs, nor save them from death, or keep them from going the way of all the earth, before that time rolls around.

It is always a benefit to the regular bee raiser to know the experience of all others in bee-keeping, and he can never know that unless you write your portion of it for publication. I am glad it is your intention to save the four hundred pounds of honey, which is deposited around your farm, in the millions of beautiful, tiny flowers of

Georgia. Yes, certainly friend Rambo, if you wish to induce the farmers to keep bees, and subscribe for the BEE WORLD, you must make your own bees prosperous, so they will believe what you preach to them. I have often had bees swarm before they had any queen cells sealed over, and, in occasional instances, even before any were started. So you see your rule may have exceptions, and will not always hold good; and likewise the cells may not all be upon the comb you wish to remove; and further, you must be particular that the queen is not on the comb containing the cell you remove to the new hive, or you will be defeated. All the cells must be cut from the combs of the old stand where the queen is, and but one left on the comb in the new colony.

As I anticipated, Dr. Brown replies to friend Dadant, in regard to the origin of Italian bees; those interested in that matter will read what they have to say on the subject.

The "Chips from Sweet Home" begin to buzz about our ears once more. They seem to say, as they whistle by, "The season has hardly been up to the average," for honey. White clover blooming but little, basswood an average, elbow brush (please explain what that is, friend Palmer,) better than usual. Commenced the season with 35 colonies; ended it with 100, and 3,600 pounds of surplus honey. Quite fair after all. The extracted honey sells first. These chips sing of the extravagance of eating the comb, filled with honey, or the combs partly filled. I may add that it is not only extravagance, but also unhealthy and wasteful. The comb is quite indigestible. All who want a pattern of the Sweet Home shipping box, will read friend Palmer's Chips from Sweet Home, and also learn the value of fowls, to pick up and consume moth millers, and surplus drones.

Our friend, P. L. V., instructs us how to make sectional honey boxes. We think he uses more wood in them than is really needed. We imagine stuff $\frac{3}{8}$ of an inch thick will do quite as well, leaving more space for honey. I use, for an eight comb hive, a case of eight surplus frames over the brood frames. The top and bottom bars of the surplus frames are as long as those of the brood frames, one inch wide, and $\frac{3}{8}$ of an inch thick. The end pieces eight inches long, and $1\frac{1}{2}$ inches wide, $\frac{3}{8}$ of an inch thick, nailed on the end of the top and bottom bars, projecting $\frac{1}{4}$ of an inch each side, and thus the end pieces space these frames when adjusted in the case, so they stand each one directly over a brood frame, and the ends fitting snugly together prevents their being glued very fast. They rest on a $\frac{3}{8}$ inch strip nailed across each end of the case, projecting $\frac{3}{8}$ of an inch inside the case. These resting on the lower frame, make a $\frac{3}{8}$ inch space between the surplus and brood frames. The cases hould have a removable side and a removable cover for convenience. Friend P. L. V. ends his article with some remarks on the honey dew question.

My friend Argo is after the dollar queen men, and shows where it won't do, on account of the dishonest character of some men, who will take advantage of it. He shows that the dollar business is a losing operation, unless properly situated and peculiarly fixed for it; then it will only barely pay. Yes, friend Argo, urge Mr. Connoisseur for his secret of success in obtaining the pure fertilization of queens.

You are right; there is no benefit in writing a hint at things, if the whys and wherefores are not explained so we can all be benefitted. Pin him closely, so we can all see if it is "moonshine" or a reality. Friend Argo winds up by an appeal to bee-keepers to give their experience as to what is the best shipping cage for the safety of queens. This is all right. Who is prepared to answer Mr. Argo, in the BEE WORLD?

Next we notice "Bee Items in Arkansas," by friend Parse. All that I have to regret is, that he does not write oftener for the BEE WORLD. His exposition of hives, extractors, and queen nurseries explains itself to all who have a desire to be enlightened on such things, of the rarest convenience in the apiary. I am informed that he commenced the season with 22 colonies, increased them up to 57, and obtained 1,600 pounds of surplus honey. Pretty fair for the season he talks of.

Friend McLean congratulates having succeeded so well this year—having made bee-keeping a sustaining business. But it seems the secret of his success was the abundant profusion of honey yielding flowers in his vicinity. Yet his success in raising queens was not good; he may therefore have need to join with Mr. Argo, to consult Connoisseur and get his secret in that line.

"Chips from Sweet Home" also comments upon the tidy appearance of an apiary.

Our friend Kellogg has not yet seen Dr. Davis' metallic clamps for the upper corners of the comb frames, and the spacing supporters for them to rest in. I think he will call them a good thing, as all others do who have seen and tried them. But what astonishes me most is, he wants to crawl out of being critic, and wants to put a double burden on Dr. Davis. He then concludes with his report of success in bee culture.

Mr. Davis of Delhi, Mich., reports his success in transferring worker larvæ into incipient queen cells, and having them reared into nice queens. Notice that, queen breeders. They will, of course, try that experiment and see if it can be made available, and favor his transposition process.

Friend G. (which means Gammon), explains satisfactorily about the key-hole in the drawer,and that he did not mean the bee journal called BEE WORLD when he was speaking of standard hives and frames. All right. He then undertakes to controvert Dr. Davis' statement in the following question: Cannot everything in that line, desirable, be rendered practicable? He says: "I answer, emphatically, it cannot." If I admit that there are innumerable things desirable, which are not practicable, will that militate against the statement I made of that question? You will notice, friend Gammon, that I confined it to the line of hives by the expression, "in that line," instead of extending it to ministers of the gospel, and a thousand other things in Christendom, not connected with bee hives and frames. I beg leave to differ with you yet in regard to the will of the principal bee-keepers. That will is progressive, and when once set in the right direction will set all patent rights aside that does not give a better hive or frame than those claimed as the Langstroth hive and frame, which are now free. Personal interest, and the almighty dollar, as I said before, may retard its progress for a season.

Friend Gammon, you confess just what I looked for in regard to the cultivation of bee pasturage, when you admit that artificial pasturage should be cultivated, and that forest trees are needed to bring the fertilizing rain, and the invigorating dews; then I reply, set out your basswood orchards cultivate them, and other kinds of timber that yields honey, fuel and lumber, and you accomplish the very thing I desired in addition to grain, grass and other honey yielding plants; and it may not be amiss to devote a few acres of land, that cannot readily be cultivated in the grains, to the Melilot clover, which the National bee hive company once said would yield from 300 to 500 pounds of honey to the acre. That, of course, would pay. The seasons have a great influence on the honey yield. Well, friend Gammon, when we do not agree which hive, the box or the frame requires the most attention, who shall decide? I have found the box hive as literally filled with the moth cocoons as I ever did in the frame hive; and when in the box hive your only remedy is to transfer, as you cite a case; while in the frame hive we can remove every moth before they complete the destruction of the colony and the combs. Your remark, "Mr. Davis must know there are many more places for the bee moths to secrete themselves, and attach their cocoons to in the frame hive than the box." I must reply that I have not found it so, if the frame hive is properly made. But have ever found the combs as easily attacked and destroyed by them in one hive as another, if there was not bees enough to cover and protect the combs from their depredations.

If friend Sherendon wants Dr. Davis to know anything about his knowledge of a "speck of the world," he need not be afraid to talk to the Dr.'s face. If he is "old" and "silver haired," yet he is not so "haughty and domineering" as Ephriam of old, that he cannot be "taught" by Sherendon's "wrinkle or two," provided they are an authenticated record of facts, but not "opinions," unless supported by the facts.

Friend Love, please ascertain the name of your honey plant, and publish the same in the BEE WORLD.

Certainly, friend Moon, performed a great feat, to transfer a colony of bees, combs and honey, to another hive in sixteen minutes. If any one can do it in less time, and better, let him do so in the presence of such a number of spectators and claim the victory, or else acknowledge Mr. Moon the Huber of America in apiculture.

One word to the correspondents of the BEE WORLD: I have begun to suspicion that you are too tardy in sending in your communications, and consequently the editor cannot get the journal out on time. Please be a little more punctual, and have the communications early, so the WORLD can be issued by the 10th of each month.

Charleston, Ill., Nov. 1874.

STANDARD FRAMES.

BY H. NESBIT.

You have requested those writing on Standard frames to give reasons for preferring a given sized frame.

In September number I stated that I agree with Mr. Dadant on size of frame—12x16, outside measure. My reason for so large a frame is this:

1st. I observe in the spring the queens will deposit eggs faster, and the increase of the hives is much more rapid with large combs than small

ones. The queen first deposits eggs in a small circle, and after a few warm days enlarges that circle an inch or more, and continues enlarging this circle on two or three combs until the circle is extended eight to ten inches before going on to other combs. It seems that the queen, early in spring, dislikes to cross from one comb to another. The frame I have used for many years is 10x17, outside, and I often find in spring the brood from top to bottom on three combs, and extending back twelve to fourteen inches before they commence to deposit eggs on the two next combs; and by the time the fourth and fifth combs are pretty well filled with brood, the three middle combs are filled back to within an inch or two of the rear end, and full to the frame at the front end. But very seldom ever find brood extending from front to rear more than fifteen or sixteen inches. From this I conclude that a comb sixteen inches from front to rear, is sufficient, and twelve inches high is as large as can be conveniently handled.

2d. Large frames are just as easily handled or extracted from as small ones. Just as easily made and cost no more per frame, and less frames to handle, consequently time and money saved.

3d. With large frames and hives, bees are less apt to swarm and go off, will store more honey in a body than where small frames or boxes are used, or even in two story hives.

4th. Bees in this locality will winter better in hives with deep frames than shallow ones, because they have room to store honey above the cluster of bees, and as heat raises, they are enabled to go to these stores oftener in cold weather than if they had to walk way back to the rear end of a long frame, or cross over to another that was cold and frosty. There is seldom frost immediately above the bees.

Now, Mr. Editor, are not these four reasons good and sufficient for wanting a 12x16 inch frame? Let us hear from others.

Cynthiana, Ky., Nov. 1874.

BEES INJURING FRUIT.

Cowper's lines on the pine-apple and the bee, are very suggestive on the seeming unsettled question, do bees injure fruit?

"The pine-apples in triple row,
Were basking hot, and all in blow;
A bee of most discerning taste
Perceiv'd the fragrance as she pass'd,
On eager wing the spoiler came,
And search'd for nectar in the flame,
Urg'd her attempt on ev'ry side,
To ev'ry fold her trunk applied;
But still in vain, the hull was tight,
And only pervious to the light;
Thus having wasted part the day,
She trimm'd her flight another way."

The moral is fine—we give a portion, running thus:

"Our dear delights are often such,
Expos'd to view, but not to touch;
* * * * * *
For they whom truth and wisdom lead,
Can gather honey from a weed."

TRANSPORTING BEES SOUTH FOR WINTERING.

BY J. J. R.

Mr. Editor:—In view of the disastrous losses in wintering bees, lately experienced in our Northern and Western States, the question of moving apiaries to the more genial temperature of the Southern States during the winter season, has assumed a form of peculiar interest and importance. The time and labor consumed in preparing hives for wintering, the

outlay of money in building depositories, the large amount of valuable room occupied by hives in cellars and houses, and, withal, the care and anxiety and frequent heavy losses experienced by bee-keepers have long since caused Northern bee-fanciers to ask themselves the question, if the pleasure and profit of bee-keeping are not more than counterbalanced by the drawbacks and losses mentioned, and many more that I cannot just now call to mind. To those owning but a few hives it is not a matter of so much moment, but to the farmer who has his hundred or more colonies of valuable bees in good hives, it ought to be a matter of some concern whether to risk them any longor to the inclemency of Northern winters, and the chances of disease, when, by a moderate outlay he can transport his bees further South, thus escaping loss, and returing home with full, strong colonies, after having gathered the rich honey harvest of the Southern spring, just in time to be on hand for their own more backward home pasturage. It would be, if intelligently carried out, not only be a matter of safety, but one of profit. Chartering or buying a barge on the upper Mississippi, or its tributaries nearest the apiary, the colonies could be stored on board, and under the guidance of the bee-keeper, (a hired one if necessary), they can descend by current or tow, to the location selected in the South, and leaving, if need be, his colonies in the care of some one understanding the management of bees in one of the many Southern river towns. He can return home by rail or steamer, and call for his bees after they have deposited the honey of the spring flowers. Of course at this time an experienced person must be on hand to manipulate the hives, attend to swarms, put on or take off boxes, extract, etc. The spring harvest over here, in returning up stream under tow, he can be cast loose at as many points as he may desire, and give his bees a fly for health or honey. The same advantages would apply to transportation by rail, but that would be more costly,—by steamboat would be preferable to either mode suggested.

The practical apiarian, however, who makes a business of honey, hives and bees, would reap more benefit from the adoption of the above views than any one else. As it is now, his bees are doomed to the enforced idleness of the long winter months. By moving them South, as I have suggested, he could take a crop of honey in March and April—the difference exactly between a handsome profit and a dead loss—to say nothing of the sale of hives, queens, and the dissemmination of the modern modes of bee-keeping among the people, which would be of great advantage to them, and to the interests of apiculture generally.

From a private letter lately received from a prominent Western apiarian, it is very probable that a move will be made in this matter of transporting bees the present winter, and that the pioneer apiary may locate at or near this city. I shall watch the enterprise with some interest, believing, as I do, that all the benefits I have enumerated will be realized.

We had a good fall crop of honey here, and the bees have abundant stores for winter.

New Orleans, Nov. 1874.

C. P. Dadant, our esteemed correspodent from Hamilton, Ill., passed this city last week, en route for St. Louis, with 4,000 pounds of honey.—[Western Agriculturist, Quincy, Ill.

REASON, INSTINCT, &C.

BY TENNESSEE.

A child, not an idiot or a fool, having visited a hive of bees and being severely stung by them, cannot be induced to again loiter about there, or beat upon the hive. Is it instinct or reason that admonishes it to keep away from there? You will say, reason, of course. The recollection of having been stung there, and the fear of being stung again, keeps it away.

A hawk having been frequently shot at, and not seriously injured, soon finds out how near he may fly to you without getting hurt. He knows nothing of the point-blank, or range of your gun. Is it an inherited instinct that teaches him to stay a given distance from you? Is it not rather a recollection of former injuries, that teaches him to reason, if he flies near you, or sits on a tree and allows you to ad vance near enough, he will be shot at and probably injured?

Instinct may teach a bee, so soon as it arrives at a suitable age, to leave the hive and become a producer (labor in gathering), to go forth in search of that peculiar food, nature has provided in nectar secreting blossoms of trees and plants, and sweet dews. You visit the fields and induce a bee to sip from a cup of honey provided by you; the bee gets its load quickly, when probably a dozen or more flowers, consuming time and labor, would have to be visited to obtain the same amount. It leaves for its hive and returns in a short time to the identical spot where it obtained food so easily. After several visits, numbers of bees from the same hive will visit the spot, and continue to come in greater numbers so long as the honey lasts. But for an introduction this treasure would not have been known. Now, what induced the first bee, and led it to return to the honey, and what brought, and why did others come from the same hive to the place? Will you call it instinct? Not a word of it!

Does instinct teach 20 or 30,000 bees to commence a structure and work together in perfect harmony, a work requiring weeks or months to complete?

You say insects and animals have no reasoning powers. How do you know? It is claimed by some writers on natural history that animals have a language peculiar to themselves. If that be true, why not admit reason? Others say they cannot reason, for, say they, birds and their offspring, from generation to generation build the same kind of nest and are never improved upon—that bees construct and build their cells in the same way they did thousands of years ago, and man, only, being endowed with reason, is a creature for improvements, and is continually advancing in science, architecture, etc., etc.

Admitting all that, what does it prove? Will you say perfection in the lower order of animals? The nest of the bird and comb of the bee, being perfect, for the uses intended, what need of improvement?

A correspondent says it would interest him, and others probably, for the subscribers of the WORLD to write what kind of hive each one uses, its size, and the amount of honey annually obtained from them. Their particular locality described, honey resources, etc. etc.

MARKET FOR HONEY.

BY SHERENDON.

Last spring Mr. A. sent a honey merchant a barrel of honey, being a cash transaction; and Mr. A. now says, if he don't send the money along directly, he will expose and publish him as a swindler, that all the bee fraternity may know and beware of the scoundrel, etc.

Mr. B. sent a barrel of honey and it leaked out about one-half in transit; but Mr. B. thinks to himself, that most of the leaking reported, took place in the house of the merchant, etc.

Mr. C.'s barrel of honey didn't come up, says the merchant, to C.'s representations, and he wont give within 5 per cent. of what he offered. The merchant having it all in his own hands, C. gets about half what he expected, but thinks he has been swindled, and so on through the whole alphabet of shippers.

Now you, who are situated like ourselves, not near a good honey market for all your surplus honey, we will tell you how we manage to get rid of considerable quantities. It doesn't suit us however, as well as handling the greenbacks, but it is better than sending to New York, Cincinnati or Chicago, and not getting satisfaction. Honey is not a staple like domestics, shoes, or corn, flour and bacon. People can do without it. All admit it's mighty good to have, and they would buy a little if times wasn't so hard, etc.

We sold a commission merchant 100 bushels of corn, and he loaned us a corn-sheller worth $15, with which to shell the corn. Finding it a good one we offered him 100 pounds of honey for it, and didn't have to carry it back —we traded. The old woman and children needing some winter wear, hats, shoes, domestics, etc., and ourself a pair of boots and coat, made the purchase of a dry goods dealer, and paid him ⅓ in honey. Our barn and workshop needing a new cover, honey was bartered for cedar shingles. After ten year's use, our cooking stove and utensils was showing the worse for wear. On visiting a tinner and stove dealer, he was anxious to sell us a new one, and we bought a stove, so much to be paid in honey. In short, we pay in honey for all the medicines used, our blacksmith's bill, and, as the executor's and administrator's sale notices always say at the bottom, "many other things, too tedious to mention," are paid for in honey. Try it yourselves.

Nov. 1874.

ENEMIES OF THE HONEY BEE.

BY A. H. R. BRYANT.

Mr. Editor:—At the head of the list I must place that animal, "genus homo." Man, especially those bee owners who disregard improved bee culture; who, becoming the possessors of a stand or so of bees, thrust them into a "log gum," stick them down close together in the broiling sun where, if their combs escape being melted down, they grow "beautifully less," daily, until they become an easy prey to the moth worms; or should they escape the above catastrophes, they become martyrs in the fall, to the brimstone match. Such owners are not entitled to the term "bee-keepers," for when their bees swarm they merely put them into a "gum," and pay no more attention to them until they call on the little servants for their hoarded sweets.

Next in the list is the family of asilus flies, robber flies, or, as I shall term them, Texas bee killers. There are many members of this family, but I shall only notice two of them. The first is known to entomologists by the name of "promarchus," is about one inch in length, and of dark brown color. Their habit is to perch near the hive and take the bee on the wing as she plays in and out of the hive, flying back to his perch to suck the life-blood of his victim, and continue their depredations until the colonies diminish in numbers, for these flies are very numerous.

The second of the family of asilidae is the "Dasypogan." His habit is to sit on or near the flowers and await the visits of the bee, when he pounces upon her and bears her away to some convenient seat where he may feast upon her sweets. This fly is of a reddish-brown color with green head and very long legs.

Next comes the dragon fly. The largest size, the musquito hawk, is a great scourge upon our little pets. They hover over the apiary by hundreds and take the busy hordes by the thousands, high up in the air, and at twilight they will chase the little worker to the very threshold of her home, and bear her away in his ærial flight and devour her bodily while on the wing.

And now I will mention an enemy, though an inanimate object, yet a great annoyance to bees, destroying its thousands. I refer to a certain milk weed, called by many "silk weed." The bees are very fond of it, which becomes fatal to them in this way: There is a glutinous substance in the flower, which causes particles of the stamens to adhere to their feet, and finally causes their death.

The king birds and summer red bird come in for their portion, which does not amount to anything serious.

My next article will be on bees, vs. honey plants.

Kaufman, Texas, Nov., 1874.

NOTES FROM MISSISSIPPI.

BY BAKER.

EDITORS BEE WORLD: It has been some time since I have written you an article, and now I am at a loss to know on what subject to write. There are many that interest me, but few that I am able to impart any information in, or to throw any light on. Negligence. This subject seems to have cost me more than any other in the line of Apiculture, and may I not recommend to all new beginners that they do not follow my example. The old adage, "a stitch in time saves nine," and another, "an ounce of preventive is worth a pound of cure." During the honey season, in this part of the South, the bees gather honey very fast, and it seems to me that they construct their comb more slender, or of softer wax, or that the honey gathered was of a heavier nature than common. For the greatest loss I have ever sustained in any summer was this, and it was all caused by the breakage of the comb and the running of the honey, then the robbing of each other was the consequence and negligence was the cause. Out of thirty-five colonies I lost about ten. Some I could have saved had I attended to them in time. One time I tried to stop the robbing and killed one stand full of bees by stopping them up too long at one time when it was very warm weather. I am in favor of a uni-

form frame about 12 inches wide and 11 inches in depth. I use a top frame 5 inches in depth and 12 inches in width, 8 frames of brood and 8 top frames in each hive. The hives that broke down were 14 inches in depth.

Hernando, Miss., Nov. 25, 1874.

SKETCHES FROM TENNESSEE.

BY S. D. MC'LEAN.

FICTITIOUS NAMES.

Mr. Editor: It is a principle in optics that light emanating from a luminous body, and being intercepted by an apaque one a shadow falls on the opposite side of the opaque body from the radiant one, and by tracing the shadow will lead to the substance; but not so with the correspondents of the bee journals. We can't trace them. They give us the shadow, but it is false, being turned aside by a false medium. Then where is the substance? Hid! Yes, hid behind a false name. Why? Is it because they have not courage enough to face their peers or fortitude sufficient to bear public scrutiny. We fain would believe otherwise. We cherish the hope that none will persist in crippling their own influence or the cause of apiculture, by hiding behind a fictitious name. So come, brother bee-keepers, present a bold front. If you are vanquished facing the foe, it is more honorable than throwing missiles in ambush.

APIARY FOR DECEMBER.

The lovely days of autumn have passed away and the bleak and dreary days of December have come. All nature seems to suffer under the manacles of ice-bound winter. The operations of regular out-door labor are checked, and the laborers for a good portion of their time are compelled to take shelter within their cozy abodes. The active operations of the apiary, too, are suspended for a season, and the tiny occupants of the hive are taking their long winter repose. It would seem that the bee-keeper, too, might fold his arms and while away the moments in leisure, waiting for the propitious days of balmy spring. But nay, there is work for him to do in the interval. And first of all, he should know that his bees have been properly cared for. See that they have plenty of store—that they have passages through the combs—an operation too much neglected by bee-keepers, and that they are sheltered as far as practicable from bleak winds and sudden changes in the weather. After knowing that his bees are all right, he should prepare hives for the coming spring—have all things ready, that no time be lost when swarming time comes, and the apiary is in full blast. Much depends upon having all things ready so that when the harvest comes we will be ready to reap, and we will hear less of poor seasons and blasted hopes.

Culleoka, Tenn., Dec.

A FEW WORDS FROM CHARLES PARLANGE.

Editor Bee World:—Your letter requesting an article from me has just come to hand. I must first apologize to you and to my brethren in apiculture for my long absence from the columns of the World. Professional duties have lately left me but little leizure to write for your valuable paper, but I have read with great interest the many instructive contributions of your correspondents.

The season of 1874 is now closed, and I hope that all of us will find time this year to give our experience and

compare results. Being the only scientific bee-keeper in my region of country, I can therefore speak only for myself. The yield has been excellent, notwithstanding the early blossoms were destroyed by the overflow.

The quality of the honey was first-class all through the season, the spring honey and that extracted in the fall being nearly equally fine. The bees multiplied rapidly, large numbers of workers were reared in the fall, and the hives are now substantially stored with capped honey.

I closed the season with 110 colonies, all pure Italians. I expect to have 300 stocks in the field the coming season, and towards the end of 1875, I hope to send you a report that will make Hosmer, et. als., "hide their diminished heads."

Please excuse the brevity of these rambling remarks, and with a promise of a regular article for your next number, I subscribe myself,

CHARLES PARLANGE.

Pointe Coupee, La., Nov., 1874.

BEES AND BEE JOURNALS.

BY GEO. W. BARCLAY.

FRIEND MOON:—There is so much that is beautiful and interesting connected with bee-keeping that I hardly know how or where to begin my "piece." It is astonishing what rapid strides apiculture has taken during the last decade. Theories were advanced ten years ago, that were hooted at and ridiculed as the production of the crazed brain of some over-enthusiastic bee-keeper.

To-day they are recorded as facts in the annals of bee-keeping. Without theory we would have but very little that is practical. There is a wide field open yet for the practical apiarian to explore. Grand possibilities and results lie before the industrious bee keeper. How often we jump to conclusions, when after a series of experiments, which cost us much trouble. expense and disappointment, we find ourselves in error; and often in our hasty conclusions we advanced false theories. Theoretical theory (if I may use the term), and theory based upon practice, are two widely different things. But with the light we have on this branch of rural economy at the present day, the science of bee-keeping cannnot help but take a higher position among the industries of our nation. There are mysteries which shroud the home of the honey bee, that the researches of our greatest scientists have failed to penetrate. But we shall leave the subject for abler pens than ours.

Now for the bee journals. There seems to be a most unmitigated selfishness rankling in the bosoms of some of the editors and publishers of the bee journals of this country. Whenever an editor or publisher withholds the postoffice address of his correspondents, you can safely put it down that he is doing it for some selfish purpose. Often we would like to write privately to the writers in some of these selfish dog-in-the-manger editor's and publisher's journals, and how are we to find out their postoffice?

But, Mr. Editor, we will not weary your patience with long article, and we may have occasion to refer to this subject again.

Success to the BEE WORLD.

Tipton, Iowa, Nov. 1874.

LET your neighbor read this number of BEE WORLD through, and ask him if it is not worth $2,00 a year.

ITEMS FROM ILLINOIS.

BY J. G. THOMPSON.

FRIEND MOON:—The season's work is closed, the bees are snugly tucked away in their winter quarters, and it strikes me that it is a good time to review the labors of the season and see what has been learned, for every bee-keeper who works with his eyes open will, in the course of the season's operations, learn some things that may be of benefit to the cause, and when such knowledge is gained, I think we should willingly let it be made public. In the first place, in reference to the season in this section, I will say that the spring was rather cold during March, so cold that the bees could gather but little pollen from the soft maple and other early flowering trees; but when warm weather did fairly set in, the weather was fine.

During the time when apple, peach and other fruit trees were in bloom, the weather was all that could be desired, and the busy little workers were not satisfied with the 10 hour system, like most mechanics of the human species, but they put in full time, not even sparing time to eat their dinners.

The season continued good till the Lynn was out of bloom, then set in a a drouth that continued for two months during which time the bees done little but eat up most of what they had accumulated.

When the fall flowers began to open they were as usual, on the alert and filled their hives in a very short time and stored considerable surplus in boxes. In fact, every one was astonished that they should do so well and wondered where they could find so much honey.

As I have intimated above, I have learned a few things during the past season, and one of them is an easy mode of hiving bees, and which I have practiced this year. My mode is this: I have a glass tumbler sitting on a little bench or stand in a convenient place, and as soon as I see a swarm issuing, I take the tumbler and place myself close beside the hive and watch, and as soon as the queen comes out she will almost invariably drop on the grass before rising, especially if she is an old one. I set the tumbler over her and keep her a prisoner till the bees are all out. I then remove the old stand to a new place and put the hive into which I wish to put the swarm in its (the old hives) place. The bees on missing their queen will soon return to the old place and will enter the new hive, and as soon as they begin to gather about pretty freely on the lighting board, I place the queen at the mouth of the hive and they all go into the hive without the least trouble. This mode might not suit those who are anxious to increase their stock, for the old swarm will very rarely swarm again the same season, but even in that case I consider it the safest and best plan I have ever practiced, for the new swarm will get all the field workers and will be very strong, and the old hive being full of young bees and brood continually hatching, will in a few days be as strong as ever.

This plan might not work as well in cases of after swarms as the young queens are more lively and not so easily caught; but for my part I do not want any after swarms, for as a general thing one good swarm is worth more than two poor ones. A good hive of almost any kind filled with a strong stock of bees is the only moth-proof hive in existence.

Urbana, Ill., Nov.

THE BEE-KEEPER'S INSECT ENEMIES AND INSECT FRIENDS.

BY J. P. H. BROWN.

The wide awake bee keeper is always on the look-out for anything that will injure or kill his bees. The moth is well known, and is regarded as a terrible pest by that class of persons who manage their bees upon the "let-alone" system and "old idea" principle. As the warm weather is more protracted in the South than at the North, we have many more broods of the moth during the season, and of course our hives need careful attention. If you stand before your hives about dusk, you will be very apt to see the miller flying around endeavoring to seek an entrance. If the colony is strong and the entrance well guarded, it will not venture, but will alight near the entrance, or near some crack or opening in the hive, and deposit a circular patch of eggs which, in the course of a few days, will hatch out into very small white worms. These worms at first are so small that you can scarcely see them with the naked eye; though as small as they are, they move with great rapidity. They mostly take refuge in the litter around the edges of the bottom board and in the cracks and crevices, and soon grow into large, fat, loathsome creatures. If the colony is weak, the eggs are often laid directly upon the comb, and as the food of the grub is wax, they soon destroy the once happy home of our little pets. The remedy is: not to depend upon moth-proof hives, but upon strong stocks intelligently managed. You must have about you enough of the commodity of industry and vigilance to enable you to frequently examine your hives, and to keep the bottom board and all cracks and corners near the entrance free from the accumulations of wax. The tighter the hive is made the better. For this reason I make all my hives with fixed bottom boards, and have all the joints securely nailed and screwed so the hottest sun cannot warp nor open them.

Cockroaches eat honey, and do much damage to weak colonies. They can be readily exterminated by placing most any of the popular rat poisons, mixed with honey, in shallow vessels and setting these in places frequented by them. But this can only be done where no bees can get at it, otherwise the bees will go the way of the roaches. My plan is to open the hives and kill them with the fingers and a sharp pointed knife.

Ants frequently annoy bees, particularly in the fall of the year when it gets a little cool. They are then apt to collect under the caps of the hive and get near the frames. But mostly they depredate upon the unprotected combs—gorge themselves with honey, and then make off with it to their nests. During warm weather I have never found them to do any damage, but have thought them to be a benefit, as they act as scavengers in removing the dead bees and debris that are carried out of the hive. I have never found spirits of turpentine nor kerosene to be of much use in the way of driving them off. A better plan is to place a "marrow-bone" near their nest, and when it gets covered with them, plunge it in hot water. Repeat this until they are exterminated. Yellow-jackets, hornet and bumble bees will enter hives in the fall of the year for their share of sweets. They need watching.

During the past summer I found a

sort of large fly killing the bees. Upon inquiry, I learned the same sort of insect was preying upon the bees in other portions of the South. The fly resembles the bumble-bee very closely, not only in size but also in color. It is densely covered with whitish yellow hairs on the head and middle portion of the body. The underside of the body and legs are covered with black hairs. The bumble-bee has four wings, while this insect has only two, which are of a smoky yellowish brown color, and exceedingly strong. The eyes are large and very prominent, and the legs are long. In capturing the bee, this insect takes a position near the hive, on some branch or bush, and remains very quiet until a bee returns from the fields laden with honey, when it is pounced upon by this fly and carried in the grasp of its legs to a perch, where it proceeds to pierce the abdomen of the bee and suck the honey. During the season I sent some for examination to C. R. Dodge, Esq., entomologist, at the Smithsonian Institution. He describes them in the November number of the "Rural Carolinian," as follows: "The insect belongs to the 'Asilidæ,' and is known to science by the name Mallophora orcina of Weid.

"It is a little singular that the habits of this fly should not have been reported before, and that these cases should come to our notice within a month of each other, where the insect has been carrying on such wholesale destruction as the letters of our correspondents seem to indicate.

There are three other flies known to economic entomology, and belonging to the same family as the species we have been describing, that bear the common name 'bee-killers.' The first of these, 'Trupaena apivora,' was described by Fitch as a bee-killer, in his early reports, and has since been remarked as very destructive in the West. Mr. Riley also describes another species, 'Asilus Missœmencis,' which destroys bees and other insects in Missouri, and 'Proctocanthus philadelphicus' is a third species.

"There is no remedy against their ravages, other than catching the insects and killing them, thus preventing them from increasing too rapidly in numbers. They could be captured in the ordinary muslin sweep net, that we have so often described, though the operator will have to make a special arrangement with the bees if he works very near the hive. For a common name we propose to call this the Southern bee-killer."

Those many-legged insects, that resembe the centipede, that are frequently found crawling round the hive, and sometimes found under the cap, have been observed to catch and eat the miller while they will not harm the bee. Several bee-keepers of my acquaintance drew my attention to this fact the past summer. Bee-keepers should observe more closely the habits of the insects found around their hives, and not slay indiscriminately, otherwise they may wantonly destroy many little insects that are their friends and assist in protecting their hives.

Augusta, Ga., Nov., 1874.

A BEE HUNT.

BY H.

In October last in company with a fishing and hunting party, we visited the western part of the State, and enjoyed two weeks amongst the still, clear lakes, and on the vine-embowered banks of the beautiful Tennessee,

where tall grows the cypress and gum, and where gigantic poplars lift their broad heads heavenward.

Having carried with us a few bee trappings, whilst others were adjusting reels, nets, hooks and lines, guns, etc., we started in search of bees, in the hope of finding a tree.

A farmer near by informed us of having cut a tree some days before, and obtained from it 13 gallons of honey, the report of which gave our company a "kind of relish" for sweetening, as we had already fed bountifully upon fish and squirrels, our first days' sport showing 39 lake pike, a game fish weighing from 1½ to 3½ pounds each, and as many or more squirrels.

We saw many fox squirrels, and gray squirrels were here in such numbers they kept a constant shower of hulls of the shell or scaly bark hickory-nut continually falling.

A day did not pass without seeing large droves of wild turkeys. They were wild in fact, and generally saw you first, and were "pulling out" when you discovered them.

On visiting a divide between two corn and pea nut fields, (believe you call them goobers in Georgia,) a mile east of our encampment, we were satisfied from the number of bees visiting the aster, golden rod and other wild flowers, of a number of colonies in the vicinity. Although nature here, as well as other portions of the State, annually arrays herself in honey secreting plants and shrubs, we were informed of but two stands of tame bees within five miles of us.

Using an ordinary queen cage, four inches in length, the stopper being removed a worker was captured, and placing the open end upon a piece of comb containing honey, immediately darkening it, and by holding it near the ear we were enabled to ascertain when the bee had found the bait and began to sip—it quit buzzing. The cage was then cautiously removed, and the piece of comb placed upon a kind of "Jacob's staff," prepared of a piece of timber 4 feet long, and 2 inches in diameter, sharpened at the smallest end, a shingle nailed on the top end, which answered as a platform for the bait.

The honey being very thick it was some time before the bee was filled. When it commenced brushing itself for a start we "advanced backward," to catch the line of flight, our sight raised at an angle of 45 deg., trying to keep up with the circling first to right and then to left, raising higher and higher with each round; about the time the last circle was being made, before taking a bee line for home, we stumbled over some clods in backing and lost sight of the bee. Fifteen minutes elapsed before it returned, owing to the thickness of the honey, it requiring more time to disgorge than their watery nectar.

The second trip was made in about the same time. The third trip not quite so long, when two bees came. After the lapse of an hour there was three, four and five sipping at the same time.

It getting late in the evening, and other matters having to be attended to before dark, we left our bait and struck out campward. As we walked along through the field, from an absence of stumps in it, it must have been cleared a long time. Several flint arrow heads, commonly called Indian spikes was picked up. They were nicely made, variously colored, and showed the handi-work of a cunning

artist. A flint rock instrument, elongated, sharp and flat, resembling somewhat the common scythe stone, was also found, and the supposition was, it was used by the aborigineees prior to their knowledge of iron and steel, in skinning deer, bear, etc.

Next morning at 9 o'clock, on visiting the bait, many bees were seen, going and returning; and it being near other flowers, had attracted bees from more than one tree, as they were leaving in several directions. Bumble bees, yellow jackets, hornets and wasps were numerous and claiming a share of the spoils.

To get clear of bees going in more than one direction, a bee just commencing to fill itself was taken upon a small piece of comb and carried 100 yards distant, the comb placed favorable for lining, when to our gratification the bee left in the same line and direction obtained the previous evening. Having now a bottle of diluted honey, it was scarcely five minutes before it returned, then two, then three or four, and in half an hour a dozen or more were going from the bait directly to their hive or tree without circling.

On the fi.st and second trip bees mark well, making repeated circles, their head turned toward the spot they wish to return to, and after several visits they rise from the bait and make a straight line for their hive without circling.

After getting a pint of bees to feeding, we started with our staff in the direction indicated, halting every few minutes at from 1 to 200 yards. A thicket of green briers, cane and blackberry bushes, was in our way, and some time was consumed in flanking it. By 1 o'clock we had reached tall timber, ¾ of a mile from where we first started, at the edge of a swamp, beyond which, on a rising, hilly piece of ground, we had, in our own mind, located the tree.

We now moved across the swamp, and logs, drift, and quick sand mires having to be got over or around, we had but two or three bees on the bait when we halted on the rise, and they not returning in ten minutes we were afraid the line was lost us, and burned a piece of comb and sugar to again attract them. An undergrowth of dogwood, sassafras, paw paw etc., was here heavy and thick.

On burning comb we got two lines, our old one and a new one, and they were working back upon our line and forward. Discovering that we had passed one of the trees, it was not long determining the tree.

Having reported at dinner our nearness to the tree, we were joined, after a hearty meal of mallard, trout and jack, by several of the company, and the bees were soon discovered in a large cypress 100 feet from the ground. The tree, although 18 feet in circumference at its base, being hollow was soon felled, and such a smash up hasn't been seen before. It seemed to shake the earth when it fell. We got but little honey. The limb and a considerable portion of the body of the tree near it, was buried completely in the soft ground. Bees, honey, comb, mud and rotten wood were smashed together, and the fire we builded near where we expected the tree to land, was of no use, for the bees received such a shock, and were so bedaubed with honey, the few that were able to fly, instead of resenting this serious injury, took wing and were, together with those not at home at the time of the catastrophe, circling in discontent,

high in the air, in search of and near their late home.

In this hunt the bees were taken to several points, and the line staked so accurately, that the point where they came together was not a rod from the tree containing the bees.

We will report a more profitable hunt in our next.

Murfreesboro, Tenn., Nov. 1874.

CHEAP QUEENS AND STANDARD FRAMES.

BY T. N. HOLLETT.

Much has been said of late in regard to cheap queens. Now it is very evident some queen breeders are so situated that they can raise pure queens at one half the cost that others can, from the fact that some have more black drones to contend with than others. We know that we can raise pure queens with profit at one half the cost that we could two years ago, and we are willing that every one should sell queens at prices to suit himself, whether it be one or ten dollars; and as to the purchaser, "he pays his money and takes his choice."

Friend Connoisseur thinks if he were raising queens to sell, he would not only sell them at one dollar, but test them also. That it only takes a little longer, and costs no more; and that there is less trouble in getting queens fertilized right than most people think. That he Italianized his whole apiary when thousands of black drones were flying, and only had two queens fertilized by black drones. In fact he never had but those two hybrid queens.

Well. we have raised a queen or two, and think we know how it is done; and consequently we cannot agree with this self-styled "critical judge of the fine arts." In the first place we can raise three fertile-warranted-pure-queens in the same time that we can raise one tested queen, and only use one colony to do it with; and as our time is our money, the cost is about the same for three warranted as it is for one tested queen. And for the trouble of having queens fertilized right, there will be trouble, and plenty of it, as long as there is black drones in reach.

Last August we purchased a colony of black bees at a sale, and brought them to our apiary. There was probably a hundred or two black drones in this colony, and during the five days those few drones were permitted to live, we had about forty queens fertilized, twenty-two of which mated with the black drones, and legions of the yellow drones flying all the time.

We, like friend Nesbit, fear that friend C. does not really know the difference between pure Italians and hybrids, and that the name "Connoisseur," is misapplied.

STANDARD FRAMES.

We are in favor of Standard Frames, but fear that the general adoption of any one frame as a Standard, is far away in the future. But when there is a call for a convention to adopt a Standard Frame, like friend Dadant, "I will be there."

We use a frame twelve inches deep, by 12¼ inches in length, and find that it answers the purpose very well. But our greatest objection to a longer and shallower frame is that it would cost us a new set of hives, which at present we do not see how we could very well afford.

Pennsville, Ohio, Nov. 1874.

HONEY DEWS.

BY C. P. DADANT.

When I wrote the article as entitled above, which was inserted in the July number of the BEE WORLD, I was not expecting any criticism upon it, being under the impression that the BEE WORLD was not very lively. But I find out my mistake now. It seems that the readers of the BEE WORLD are awake, and not to be imposed upon by "anybody's self-satisfied wisdom." I am glad to see it, even if I were to get the worst in the discussion.

After reading the arguments of my brother bee-keepers, Eldridge Knight and A. H. R. Bryant, I still hold that none of the arguments evidently prove that the dew—I mean the honey-yielding dew—is a secretion of aphides. It is a fact which needs not to be discussed that aphides secrete a sweet fluid, since ants are often seen sucking it from their bodies.

But may I ask one question? Did any bee-keeper ever see a bee sucking an aphis? That would help to solve the problem. There is one argument which seems to me to be irresistable. If the aphides could produce dew in such an amount that it would fall from the leaves and drop to the ground, the dews produced by the aphides at the upper portion of the stems would surely daub and drown those placed below them.

Besides, the immense quantity of dew spread evenly on every leaf could not possibly be produced by those insects in so short a space of time. Nor could it be spread in such an even manner.

I see nothing as yet to disprove my view of the subject, except in the assertion of Mr. Knight, that he has seen honey dew on dry leaves beneath the trunk of a fallen tree, where, as he says, it could not come from exudations or from the atmosphere. But here I see no possibility of it having been brought there by aphides, consequently, in this case at least, we grope in darkness.

Wherever I have seen honey dew, I have seen no possibility of accounting for it as an exudation of aphides.

But give us light. Let us have truth, whatever it costs.

Allow me to say one word to Dr. J. P. H. Brown, on the question of Italian bees. Out of about 100 queens which we have received alive from the Adriatic last summer, and that we have introduced in our apiary, I have yet to see one that did not prove to be a pure Italian, such as I would choose to breed from.

Hamilton, Ill., Nov. 1874.

It is related by Livy that before the battle between the Romans and Carthageneans, near the Ticinus, two ill omens had filled the Roman army with consternation and dread, to wit: a wolf had stolen into their camp and cruelly mangled some of the soldiers without receiving the least harm from those who endeavored to kill it; and, secondly, a swarm of bees had pitched upon a tree near the Prætorium, or general's tent.

It is estimated there are two million bee hives in the United States. A hive yields on an average a little over 22 pounds of honey. The average price at which honey is sold is 20 cents per pound. so that the revenue from bees is $8,800,000.

THE NATIVE LAND OF THE ITALIAN BEE.

SECOND ARTICLE.

BY CH. DADANT.

In a preceeding article I have written that all the bees of the Italian peninsula are pure. Mr. J. P. H. Brown, to prove that all the bees of Italy are not pure, quotes my own writings, from which it seems that there are some impure bees in Italy.

In the letters that I have written from Italy, while I was there, not as employee and sent out by the Italian Bee Co., but as associated with that firm, I wrote all that I had heard and all that I saw. I heard many Italian bee-keepers praising their bees and undervaluing the bees of other districts. Of course I was unable to gainsay the truth of their assertions, and gave them as sayings. Since that epoch I made enquiries and am satisfied that there are no impure bees in Italy, unless they have been imported from other countries, as Hruska did to make experiments.

Besides the sayings of more or less interested parties, I had used own eyes, and I can assert that, in all my travels in Italy, I have not encountered a single bee that could be termed hybrid, all the worker bees having the three yellow rings, a characteristic mark of the Italian bee.

In some districts, especially in the mountainous districts, the bees seemed darker, i. e., the yellow rings seemed more narrow and the black borderings wider than in the plain.

That is the reason why I preferred the bees of Lombardy. Mr. Nunn, who went also into Italy to buy queens last spring, and who brought with him thirty queens, got these queens in Lombardy.

I will not repeat the quotations of Mona, but I will remark that this queen breeder, living in the Rhetian Alps, speaks against his own interest in saying that all the bees of Italy are pure; for he helps his competitors of the other parts of Italy.

In a French book just received—le cours d'Apiculture, fourth edition—I read this: page 14, "The Italian bee inhabits all Italy, and the neighboring Swiss cantons. * * * * In every breed of bees, the same as in the breeds of other animals, there are some individuals and even families, which differ in color. These come generally from the locality, or the quantity or the quality of the food while in the first stages of life, etc. * * * * It would be a big mistake to think that these bees are of a different breed, for their differences are but light varieties of the same progeny." The writer of these lines —Mr. Hamet—is not a queen breeder, but the secretary of the French Central Society of Bee Culture, Professor of bee culture, and editor of the Journal l'Apiculteur, Paris.

To conclude, I say: All the worker bees in Italy have the three yellow rings, more or less wide. In time of scarcity the yellow bees show but two rings.

An easy way to find out if a worker bee has the three rings, is to put it in a glass of water. The bee extends its abdomen and shows the rings in their full length.

Hamilton, Ill., Nov., 1874.

It is related by Herodotus, that it was the custom of the Persians to wrap their dead in wax, in order to keep them the longer from corruption.

NOTES AND QUERIES.

E. B. Plunkett, Atlanta, Ga., writes: Please give a plan for raising queens in your next number. I want to Italianize seven or eight stands the coming season.

F. B., Asheville, N. C., writes: There are quite a good many bees kept here among the Blue Ridges, some away up on the mountain tops. Bee-keepers are becoming quite enlightened upon the subject, yet I think there is a chance for improvement.

R. Miller, Compton, Ill., writes: I commenced the bee business last spring with 98 stands of bees in good condition; increased them to 175 stands, and then reduced to 160 in the fall. Sold some swarms at $12 each, and got 11,000 pounds of honey, 9,000 extracted and 2,000 box. Got 20 to 25 cents per pound for box honey and 11 to 15 for the extracted. Put my bees into winter quarters, Nov. 18.

A. H. R. Bryant, Kaufman, Texas, writes: Our honey season has been very sorry; like last year they started out too soon, with full combs of brood, unfavorable weather followed, which forced them to destroy a good portion of the same. Consequently only about one-half threw off swarms. There was but little surplus stored in the early part of the season, say an average of 20 pounds, owing to the drouth. After the rains set in bees did well on sugar cane (sorghum), but the honey was little better than sorghum. Average for the season say 35 pounds. My bees are in fine condition for winter. One of my stocks has plenty of drones yet —Nov. 24. What is the secret of this? I would like to hear the reports from the different States, now that the year is drawing to a close.

ROME, GA., DECEMBER, 1874.

MOON'S BEE WORLD.

A. F. MOON & CO.,

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

ITALIAN QUEENS.

THE call for pure Italians has been greatly augmented this season. This is showing a progressive spirit in the right direction, and is a feeling we cheerfully indorse.

By the time spring comes and the next year's trade begins, we expect that our breeders will have decided, through the WORLD, the proper price to sell for. And while this question is being discussed, let us bear in mind that there should be no hard feelings, for we may err honestly.

WE had a pleasant call from our friend and correspondent, Frank Benton, a few days since. We were highly entertained, and the few hours spent in his society only seemed too short.

In connection with this it would not be out of place to state that we place Mr. Benton in the front rank among queen breeders, having tested some of his stock the present season. His queens are extra good.

THE weather has been so warm up to date that bees have flown almost as freely as in summer.

As the postage law takes effect Jan. 1st, we are compelled to drop a good many of the names on our subscription books, who would like to have the WORLD continued until they were able pay. We would gladly do this, as we have done in the past, but lack of the required capital prevents.

As will be seen by referring to page one, we have given a brief abstract of the proceedings of the North American Bee-Keeper's Society, in this number. As we go to press with our last form, we have received the proceedings in full from Dr. Rush, which we will publish in our next. We will give a few extracts from the Doctor's letter in our next.

AT the Pittsburg meeting it was argued that bees required more honey during winter in the Southern than Northern States. Who will show our Northern Brethren that they were wrong?

Our Club List.

We will send either of the following periodicals with the WORLD one year, including Chromo, on receipt of price annexed:

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New York Sun, Weekly	2.75
" " Semi-Weekly	3.75
Fruit Recorder and Cottage Gardner	2.35
Gleanings in Bee-Culture	2.75
Phrenological Journal	3.75

These publications are all good. If any periodical is desired that is not on the list we can get it.

The Phrenological Journal for December is an admirable closing number for the present year; it abounds in profitable suggestions and pleasant reading. There are portraits and sketches of Mr. John S. Bender of Indiana, and of Frederick the Great, Prince Eugene, Gustavus Adolphus, Wallenstein, and the Old Dessauer; also, good hits at Modern Progress in the Advancing and Retreating Races, and National Types—both illustrated. Character threefold; a sciectific exposition of mental phenomena. Spiritual Evolution, an excellent essay on the growth of moral thought. Sex in Education, put in a light, as logical as humorous, some of the main points in this great controversy. The Labor Problem is an encouraging view of that great paradox. Agriculture as related to Christianity is true. Literary Sharks shows up the plagiarists in a strong light.. &c., &c. Price 30 cents. Subscriptions are now in order for 1875, at $3,00.

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