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JANUARY, 1898.

NO. 1.

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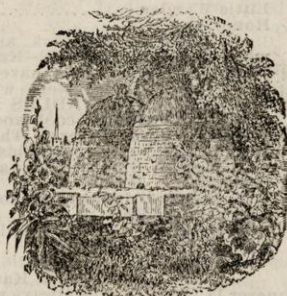
A Monthly Journal
Keeping and the other
to-Date and Progress.



devoted to Farm Bee
Minor Interests of Up-
sive Agriculture.



THE BUSY BEE.



BY INDUSTRY WE THRIVE.

EMERSON TAYLOR ABBOTT,
EDITOR AND PROPRIETOR,

ST. JOSEPH, MO.

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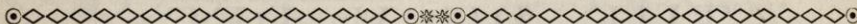
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Cuba, Kansas, Jan. 27, 1896.
Dear Sir?—I have used the Conqueror 15 years. I was always well pleased with its workings, but thinking I would need a new one this summer, I write for a circular. I do not think the four inch "Smoker Engine" too large. Yours,

W. H. EAGERTY.

Corning, Cal., July 14th, 1896.
I have used Bingham Smokers ever since they came out. Working from three to seven hundred colonies twelve months in the year. I ought to know what is required in a smoker. The Doctor 3½ inch just received fills the bill. Respectfully,

O. W. OSBORN.

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Please mention The Busy Bee.

T. F. BINGHAM, Farwell, Mich.

THE BUSY BEE.

PUBLISHED MONTHLY.

Vol. 9.

JANUARY, 1898.

No. 1.

IS BEE CULTURE PROFITABLE?

Some Arguments to Prove That it Will
Pay as Well as Other Rural
Pursuits.

By C. P. Dadant.

No business on earth is profitable unless it is properly managed, and even when properly managed it is not always lucrative. Wheat growing, of late years, has proven very unprofitable to our farmers, and yet, many and many a farmer has paid for his farm and has added to it, from the profits of wheat-growing. When we consider all the difficulties that are encountered in the growing of wheat, the worms, the crows, the chinch bugs, the cold of winter, the drouth of summer, rust, cheat; the trouble of plowing, seeding, harvesting, threshing; the mould while in shocks, and afterwards the low prices that we must accept, we are tempted to say there is nothing in it. Is there anything in corn, in hogs, in cattle? There are many failures, but I have no doubt every one of my readers can point out some man who got out of debt on a single crop of grain or a lucky sale of stock. It is the same with bee culture. We must first manage our crop right, then sell it with discernment.

There is no branch of farming, in which the competition, of anybody and everybody, is so little to be feared, as in bee culture, for the reason that many apprehend or fear the venomous little sting of the bee. Thousands have tried bee culture and have dropped it, because they were afraid of their bees. Yet there is no insurmountable obstacle for any one, in the anger of bees, if they are properly managed. But whatever we may say, no matter how many instructions we may give, the timid will ever prove a majority. So, if you can handle bees with comparative impunity, or are not afraid of their stings, you have an advantage which is not shared by the masses. You belong to the few who can, if they will, make bee-culture profitable. Let me not be understood as saying, how-

ever, that no one can practice bee-culture who is afraid of bees, for one can overcome this fear. The writer, when a child had a wonderful dread of the stings, but a constant proximity and contact with the inhabitants of the hive finally conquered this natural feeling. Mine is, probably an exceptional case, and it would be a mistake to expect any one, to overcome this feeling of fear, in ordinary circumstances, unless there is a natural adaptability in this direction.

Bee-culture is "a business of details," and the greatest requirement, in enlisting in it, is a constant attention to small matters that in almost any other branch, might look superfluous. It is useless for one to expect any success if he will leave the hives without shelter from the hot rays of the July sun, or from the polar winds of our American winters. He must see that they have food when short, that their queen is healthy and prolific; that the entrance is properly enlarged or reduced according to the season and the needs of the colony; that the grass is kept down, and the cows kept away. He must give them room just when they need it, and remove the honey just as soon as the crop is ended. I never saw a successful bee-keeper who was not, in all kinds of weather, and at all times of the year, thinking about his bees. What caused the superstitious belief, that after a bee-keeper died, his bees would not succeed, but die out, if the hives were not covered with a crape at the time of his death?

Evidently because, if no one thought about the bees at such time, it was because no one was near who cared for them, there was no bee-keeper left, but only bee-owners, and without the care of their master those bees were sure to, sooner or later, dwindle to nothing. It does not require much time to take proper care of them, but one must know what to do and do it in time.

To show how bee-culture can be made to pay, I will give an instance, taken from our own experience, during the season just passed. Hon. J.

M. Hambaugh, formerly of Perry Springs, Illinois, moved to California some two years ago. He left on his former farm between 75 and 100 hives of bees in movable frames, which he was unable to sell. The past spring he begged us to take them off his hands as he was unable to attend to them, being so far, and none of his farmer neighbors would pay him more than a nominal price for them. The location is good, but this apiary was so far from us, about 75 miles, that we hesitated a great deal about buying them. We finally accepted to buy the entire apiary, as we found a young man with some knowledge of bee-culture, and very careful, who was willing to take care of them on shares. The apiary, amounting to 75 colonies, cost \$185 all told. The crop of honey amounted to 8,000 pounds, 3,200 of which was our share, so that the bees, have brought us almost enough to pay for themselves in one season. It is true, such crops do not come very frequently. If they did, there would be no question about the profits of bee-culture; but after an experience of 34 years in Illinois, we have repeatedly ascertained that the average on which the apiarist may depend, one year with another, exceeds 50 pounds of honey per colony, spring count, and this honey may readily be figured at not less than 5 cents per pound.

Some three or four years ago, after a succession of bad seasons for bees, when honey was scarce with us, a neighbor asked us whether we still thought bee-culture was profitable. Indeed, it was not, just then, but we argued with him that we could not well decide from the few latest crops and he granted that it would be proper to look back at a succession of years to determine the matter. An examination of our honey crop account, for 13 years past, showed sales amounting to \$16,000 in that length of time, independently of a number of barrels of honey used by us annually for manufacturing purposes, and which had never been credited to the honey account. The matter was at once settled with the conclusion that there is some profit in bee-keeping.

Now is a good time to read up on apiculture. Send us \$1.25 and get Langstroth on The Honey Bee, and the Busy Bee one year, both for the price of the book.

THEY SAVED THE TAXES.

A very Suggestive Article.

In August and September, I traveled here and there in this country over four thousand miles. Everywhere I looked for signs of advanced intelligence and prosperity, namely, the garden, the orchard and the apiary. I have said before in this column that where the three were found on any farm, there might be found a farmer who understood his business—the business of living (and living with good health as a backer) and also the business of saving at the spigot.

In the country surrounding a large city, I saw from the car window all three; the garden, the orchard and the apiary, and as it was the first time I had seen the three together in that state, I left the train in the city, hired a wheel and was soon on the country road (the worst road, I am sure, within a hundred miles of Chicago) in search of the man who was a real farmer according to my idea. And he was.

He was a live, bustling farmer. He said that he had neglected the bees, "but" he exclaimed, "they saved the taxes! I have taken out and sold honey enough to pay the taxes, and I shall get considerable more before frost comes."

He, saved the taxes! Think of that all ye farmers who are groaning over the tax bill. It comes hard to pay taxes and most farmers complain in one way or another. But the farmer—my three pocket farmer—employs his bees to collect his taxes, and, although neglected, they saved him all that outlay.

And bees will pay taxes for any and every farmer in an ordinary season. There is the tax money in honey running to waste by the ton, and by the ton in the orchard, the neighbor's orchard, in the woods, in the meadows, on the uplands, everywhere; and all the farmer has to do is to provide bees to gather it.

GEORGE APPLETON.

In Wisconsin Agriculturist.

A HEALTHY PASTIME.

I am following out a plan for pleasure and profit, and one which gives me health and strength, and it may be of interest to readers of the Busy Bee who are employed in office or similar work.

I live in the suburbs of Omaha, have a cottage home with 75x132 feet of ground. My time during office hours is taken up with the details of stocks, bonds and mortgages, taxes and notes, interest and insurance. When I leave my office at night I am usually tired mentally and physically, and often more or less worried over business cares. If I went home and sat down to read, I found it often difficult to get my mind off of business, which was not conducive to health or happiness, and I discovered I must do something that would be interesting for me to occupy my mind and time out of office hours. I always was interested in fruit growing, having lived on a farm till I was of age, so I turned my attention to fruits and flowers. I set the back half of my lot with cherry and plum trees, with currants, gooseberries and raspberries between the rows of the fruit trees to the front of the lot. I put in the front of the lot a good assortment of hardy flowering shrubs, with several borders of hardy phlox, hardy pinks and a large number of rose bushes.

I took care in selecting such fruit and flowers as will do well in this climate, was careful in preparing the ground, and do everything I can in the way of mulching and cultivation. I use plenty of fertilizer, and in a dry time plenty of water, having city water in my yard. As a result, I could not ask for better success than I have had. From the time the crocus and hyacinths begin to bloom in the spring, till the ground freezes in the fall, there is no end of flowers. In June my yard is a bower of roses, and always flowers to brighten our rooms, to give to any one who may call, to send the sick or to the hospitals. Of the fruit we have all we can use while it is fresh, all Mrs. H. can put up for winter use and some to sell. I find I can readily sell at a good price all the surplus fruit I can raise, so I have leased some vacant ground next to mine and set that to fruit.

The work I give this is a great benefit to me. An hour or more of work before breakfast makes me healthy and strong, and when I go out to work after I get home in the evening, I forget all about business cares. It is a complete change, and instead of the work being laborious, it is a recreation. There is always plenty of

work to do, but I feel amply repaid for the labor, not only by the fruit and flowers secured, but by the pleasure and satisfaction I get from being successful with them. Our friends are all interested in our little farm, and I always take pleasure in showing them through the yard and garden. I also get much enjoyment studying and experimenting with flowers and small fruits, and these winter evenings find me studying some work on horticulture or pomology.

It has occurred to me that I can make bee culture work well with flower and fruit culture, so I have made a small beginning with bees, and am reading and studying all I can about them, and shall increase the number of colonies as fast as my knowledge and experience will justify. If I am successful with the bees as I have been with the fruit and flowers, I shall be satisfied. E. R. H.

Omaha, Dec. 29, 1897.

HOW NOT TO SUCCEED AT BEE KEEPING.

An Interesting Article for the Box Hive Man.

This can be accomplished in quite a number of ways, but I have thought proper before the active season of 1898 opens, to give some directions on the subject that will be found O. K., if followed to the letter.

1. You must have bees, a few swarms will do to start with. They must be in some sort of hive or box, any kind of box will do.

2. If any one should suggest that it would be a good idea to buy an up-to-date book on bee culture, or take a paper devoted to bees and honey, don't be inveigled into it, for this is usually the first step toward the very thing you want to avoid, success. Tell the party who approaches you on the subject that "book larnin' is no account," that your "daddy raised a large family of boys and gals, and never had a newspaper or book in the house, except an old dirty copy of the Bible," and that "he made as good craps as anybody," and that "he always advised against 'book larnin', and especially against 'book farmin'."

3. Get all the advice you can from your neighbors on the subject of "king bees," traps for "catching

moth," and "worms," and about the vigorous use of tin pans at swarming time.

4. Then rob promptly when the chingapin is in bloom, and if the bees should be so fortunate as to gather any honey later on, take it away from them. If they should prove obstreperous and look like they objected to being robbed, smoke them with brimstone. This last treatment has a wonderfully quieting effect on bees.

5. If any one should offer to sell you a hive with frames in it, just put him down as a swindler. Give him to understand that you know a thing or two about keeping bees, and other things; and you might refer him to the neighbors you know, who pay no more attention to their bees than they do to their walnut trees, except to give them a house(?) to live in, and rob them when they have any honey.

In the spring, if you find any of your colonies dead, just lay their death on the worms; the community will take your statement without it being sworn to.

Many of the states, perhaps all now, have laws protecting animals from cruel men, but bees are not animals, and while they furnish a large share of Uncle Sam's wealth each year, they are totally unprotected. You can kill, mutilate and annihilate bees if you desire to your hearts content, and you are responsible to no one save God for your cruelty. M. V. ESTES.
Stone Mountain, Ga.

NOTES OF BEE EXPERIENCE.

By Ambrose L. Riley.

The time has now come when our year's work with the bees is ended. We can do nothing more for the busy "bugs" except to see that they have plenty stores and proper ventilation. Then why should we who are bee-keepers not take advantage of the time and make our plans for the next year? Also why not relate through the bee papers our past year's experience with the bees? Presuming that you will all agree with me that we should, I will give a few notes. I noticed Brother Appleton said in an article called "Bee Keeping for Pleasure," that "all combs are built downward." Yes I thought it so till this year. I had one stand of bees in

an old box hive, which I save as a keep sake as it is the first hive of bees I ever owned, that produced the exception I am about to describe. I put on an empty cap which had a glass in one of its sides so that I might know when it was full, but, somehow or other, I made a mistake and turned the glass toward the wall of the bee shed. About three weeks later I took the cap off and found that there was no honey in it—no it was all left on the hive. The bees had simply commenced at the bottom and built upwards. Of course, they sloped the cells downwards so the honey would not run out. Now is not this an exception to the rule? I see there is a great swell about sweet clover in the bee journals. There was as much talk in the farm papers about the merits of the Johnson grass at its introduction, but it is now considered as troublesome a grass as the sand bur. Now I don't want to discourage anybody from sowing the seed, but I do say you had better just buy a few pounds to see if it is suited to your locality.

I have tried alfalfa, and it has been with me an utter failure. I shall the coming year give sweet clover a fair trial.

To the farmer bee keepers who still persist in using the old box hive, and have provided them no protection from the cold winter wind, I would suggest that you had better twist some hay ropes and wrap your bees if for nothing else but good luck.

In one of these notes I said something about an exception but, then that is nothing new, I don't know but what I could truthfully say that there was an exception to every thing that my bees did this year. Why, I found one swarm—or rather where it had been—which had clustered on a large bass-wood tree and built comb about three feet long and about twelve inches around the tree. I don't know but what they might have been there yet if somebody had not gone and cut down the tree. It was a hollow tree and why they didn't go inside to do their work is more than I can tell.

Bee-culture can only be regarded as truly "the Poetry of Rural Economy," when it is prosecuted not merely as a source of pecuniary profit, but also as a perennial foundation of intellectual enjoyment.—Old copy of A. B. J.

SOME OF THE ERRORS OF BEE BOOKS.

Editor Busy Bee: I wish to refer to some things said in bee books and periodicals which I am totally unable to harmonize with my own experience. For several years after I began the queen-rearing business, I was of the opinion that the bee books were very nearly perfect, but the more I learn by experience the less perfect the books seem to be. At the same time my appreciation of the books and their authors has not decreased. So firmly do I believe that my eyes have not deceived me, that I feel it is my duty to point out some of those errors, if such they be, and give some cause for their existence. I do not feel warranted in accusing those good people who did the writing of saying things which they did not believe to be the truth, but at the same time I believe them to be honestly mistaken.

In Langstroth's book, revised by Dadants, page 47, I find that if the larva selected for queen rearing is six days old, the queen will hatch in 10 days, and in 16 days, if newly laid eggs are selected. I have never seen larvae 6 days old. Bees seal the worker larvae in Texas when they are 4 days old. You will readily see that if a queen is raised from larva 6 days old, the uncapping knife would have to be used. I have never had a queen hatch sooner than 8 days after the cell was sealed, but hundreds have gone over 8 days. My experience teaches me that the longer the bees feed the larva before it is used for queen rearing, the longer it will be before it is hatched after it is sealed. It is very evident that the longer the larva is fed, the nearer it is to becoming a worker. This has been demonstrated many times in my seven years' experience as a queen breeder. This disagrees with the books also, and as it takes longer to hatch a worker than it does a queen, it stands to reason that the nearer a queen it is the less time it takes to hatch it; and the nearer a worker, the longer it is in hatching. I have used one-day larva quite often, and in every instance, where I have taken particular notice, they were a little longer about hatching than when newly hatched larva were used.

A great many good bee-keepers,

when conducting an experiment, do not seem to understand all of the circumstances which surround them. A neighbor of mine said that he had raised queens from larvae 3 days old. I asked him the following questions: How did you get your larva? "By inserting a piece of new comb in a certain hive, and examining it every few hours until the queen had deposited eggs in nearly half the cells on one side. I then removed it to a queenless hive, and on the fourth day those eggs were all hatched. I made a strong colony queenless and broodless, and on the third day after the eggs were hatched I placed them in the hive. The result was that about a dozen queen cells were built and hatched out nice queens."

Are you certain that all of the eggs hatched the same day? "I suppose they did; they were all laid the same day." Do you not know that queens eggs rarely ever hatch uniformly? "No; I did not." Well, my friend, your experiment doesn't prove anything at all; they never do; and the queens may have been raised from larvae three hours old instead of three days.

The fact that all of the eggs, though laid at the same time, do not hatch at the same time may be the ground upon which many mistakes are made, such as bees stealing eggs, raising queens from 3-day larvae, etc. For instance, I have a queenless colony, no brood nor eggs that can be seen by a careful examination of the combs. In a few days I examine the combs again and find a queen cell nicely sealed. Not knowing that it is possible that the egg from which the cell was built might have been delayed in hatching, I jump up and cry out "Stolen eggs!" when nothing of the kind had occurred. I have not noticed many such cases, but a few have come under my observation.

I have not the least idea but that this is the very cause of people charging their bees with the crime of stealing eggs. Observatory hives are great deceivers in studying the nature of bees. From these you are liable to get such ideas into your head. First, the eggs do not hatch at the proper time; second, the larvae are fed longer before they are sealed; third, the brood is often longer in hatching after being sealed. The bees or queens raised in

these hives are generally stunted. The men who learn bees from observatory hives may just as well consider themselves humbugged.

Chriesman, Tex. C. B. BANKSTON.

ANYONE WHO DESIRES TO DO SO CAN LEARN TO MANIPULATE BEES.

Any person with fairly steady nerves and some patience and courage can easily learn to control and manipulate bees. There are, it is true, a few exceptional individuals whose systems are particularly susceptible to the poison injected by the bee, so much so that serious effects follow a single sting. Such cases, are, however, rare. In most instances where care is not taken to avoid all stings, the system eventually becomes accustomed to the poison, so that beyond momentary pain a sting causes no inconvenience.

To a certain extent the belief exists that bees have, without apparent cause, a violent dislike for some people, while others, without any effort, are received into their favor. The latter part of this proposition has a better foundation than the first part, for it is the actions, rather than any peculiarity of the individual himself that anger the bees.

Bees, prefer, of course, not to be disturbed, hence they usually keep guards on the lookout for intruders. When visitors approach the hives these guards are very apt to fly toward them as if to inquire whether harm is intended or not, and should the visitor not inspire them with fear by using smoke or some similar means, but should himself show fear and nervousness, he will be very likely to arouse their suspicions still further, or even to anger them should he strike at them and endeavor to dodge their approach. Indeed, one not accustomed to the notes of bees is very likely, unconsciously, to dodge his head about when a worker buzzes comfortably close to his face. It may be a movement of but an inch or two, but perhaps a quick jerk, and being noticed by the suspicious guard is resented; a sting follows, and yet the recipient declares that he did nothing to cause the attack, but that bees merely hate him and always sting him when he approaches them. On the other hand, an equally unprotected

person who moves about with deliberation may generally, under the same circumstances, be let off without receiving a sting. It is in this case not so much what he does as what he does not do.

It is not to be understood that bees will always refrain from stinging if one remains somewhat passive in the vicinity of their hives, for the fact is that at some seasons common black bees and crosses having blood of this race fly some distance to attack passers-by or even without just provocation and with but slight warning, to plant a sting in the face of one who is standing near the apiary. But as the avoidance of such unpleasant occurrences depends largely upon the kind of bees kept, and, to a certain extent, upon an acquaintance with a few facts with which anyone of intelligence may easily familiarize himself, and the observance of certain precautions which are quite simple and after a little practice will become easy, and as the opening and manipulation of hives in securing honey, etc., is equally simple and attended with no greater risks, it is safe to say that almost anyone can, with perseverance and the exercise of due caution, learn to manipulate bees with perfect freedom and without serious accident of being stung.—Farmers' Bulletin, No. 59, United States Department of Agriculture.

It is surprising how long tools may be made to last, and how quickly they may be destroyed. It is not service that is feared, but rust. Three or four weeks of neglect can destroy the best hoe, which as many years of hard service would only wear to a keener edge.—Farm Journal.

No man should esteem himself fitted to manage a farm if he cannot read the plants thereof—know the names and possibilities of the plants he cultivates, as well as those he destroys. Botany adds to the value of labor—adds to the enjoyment of the laborer. Every farmer's boy should become an enthusiastic botanist. Doing so, his labor is increased in value and his state developed in resource.—Dakota Field and Farm.

Sweet is the hum of bees.—Byron.

ADVANTAGES OF HOUSE APIARIES.

How to Build Them.

I think that bees would be more generally kept in houses if those who keep them would try this plan of management. It is true that quite a few have house apiaries and quite a good many of these houses are very peculiarly constructed, and many of them of old date. It seems that in the past considerable prejudice existed to keeping bees in a house, and house apiaries seemed to get a black eye, and I think the cause originated perhaps from structures not suited for the purpose intended. I know that some such buildings were very peculiarly and very expensively built, and filled with all manners of ventilators, slides, shelves and tiers of hives one above another, and very long and narrow buildings, etc., enough, I know, to disgust the writer with house apiaries.

I have used two kinds of houses for bees that I like. One on a small scale, and one on a large scale. In the first place I consider the expense of these things, and adopt something that is as cheap as possible, and at the same time answer the purpose for which it is intended. Perhaps I do not put on quite enough style at these things, but if I cannot make bees bear their own expenses and give me a profit that will pay me for my attention I will quit the business, and also stop writing about them. To get about all the benefit of the house apiary on a small scale we can construct a house that will accommodate ten colonies of bees at about the same expense that it would cost to make ten chaff hives for those colonies. A small house six feet wide and ten feet long and seven feet high, will cleverly accommodate ten colonies and give good working room, besides leaving at the end ample room to set an extractor. By using two tiers of hives, which is done in most house apiaries, it would double the number of colonies. But here I will say, that after trying this plan of two tiers of full colonies in a house, either large or small, I have totally abandoned it. I do not want any full colonies only on the floor, and for the second tier we can conveniently place nucleus for queen rearing. In these small houses I

would only use floor space enough to set the hives on at each side, and have a ground floor through the center to stand on while working with them. In some respects these small houses are preferable to large ones, as they can be made portable, and so arranged in an apiary that bees never become bothered in finding their way to the hives, as is the case with those long house apiaries. They are also very convenient to winter in, as loose chaff may be first well packed about the hives, and the house may be half filled with it. As a wintering arrangement they are superior to any chaff hive, and as I said above they are fully as cheap, if not cheaper. A house of this kind may be made and painted up nicely at a cost not to exceed ten dollars, or one dollar for each hive.

On a larger scale I have used an ordinary cottage house of two rooms, accommodating about forty colonies, using but one tier of colonies on the floor, and on the second tier above I use nucleus for queen rearing only. This, on account of giving more room, I like still better than the small house, and as for shape and convenience, I like an ordinary room or rooms thus, in preference to anything else. I set the hives on an ordinary bottom board, about four inches from the floor, setting it back from the wall—the hive I mean—about three inches, thus giving working space, and room for packing in winter. Any house of ordinary construction, one that may simply break the wind and turn the rain, and a floor is not a necessity, will answer all the conveniences of a modern house apiary. A building of the size of the above, or larger if required, and a number of the small houses as described, would be my ideal apiary.

The advantages of having bees in a house are many. There is not a day in spring, summer and autumn but you can perform any work with them desired. Hives, supers and fixtures generally, need not be made and painted so as to stand the outside weather, which adds to the cost materially. All of these fixtures will last much longer by thus keeping them out of the weather, and will remain in proper shape that will allow of their adjustment to the proper place. Bees are much easier worked with in a house as they seldom ever attempt to

sting. No bees are flying about you when at work. No robber bees to bother you in opening hives. Feeding is a pleasure. In extracting, there are no bees following you around to get a taste. If you happen to get a few bees inside, darken the windows, and by thus throwing the room in darkness, and a few little holes or cracks that will admit of light, the bees will make for them at once, go out, and in less time than you can do it, they will all be outside. Of course you want bee escapes at the windows which will ordinarily let them out.

During the honey season, which occurs in the hottest time, the opening of hives and the handling of heavy combs of honey is always more or less done at a risk when out in the hot sun, and must be removed often quite a distance to the extractor. In the house the extractor sits in the center of the room, and it is but a step or two to the hive, as they are all about the same distance away, and a part of the combs may be removed only at a time. In queen rearing outside, we often lose valuable queens, and also introducing the same, by the queens taking wing from the combs which we are handling, and flying away which does not occur in the house. There is also no melting down of honey combs in excessive hot weather, as in the case of hives sitting out in the sun. The advantages in fixing them up for winter, and their chances for wintering better is equally great.

A. H. DUFF,

In Nebraska Farmer.

The subject of house apiaries has been pretty thoroughly discussed in the bee papers, and I believe that the plan is not followed by any who keep bees on a large scale in the U. S., but I can see no reason why it should not work very well for those who have a few colonies.—Editor Busy Bee.

Parties who want a fine quality of clover honey, either comb or extracted, can procure the same by addressing the undersigned, stating how much they want, and kind, when prices will be quoted, which will suit the times.

EMERSON T. ABBOTT,
St. Joseph, Mo.

Our market is overstocked with honey and prices range low. Beeswax is in good demand and brings ready cash.

Home Department.

Conducted by

EMMA INGOLDSBY ABBOTT.

This page is open to all lady readers of the Busy Bee. Any woman who has found anything helpful in her work is invited to give others the benefit of it through these columns.

HEALTHFUL SWEETS.

"My son, eat honey because it is good. Prov. XXIV. 13.

"Butter and honey shall he eat, that he may know to refuse the evil and choose the good." Isa. VII. 15.

The universal love of confectionery and the craving for it that is characteristic of children indicate a physical necessity for some form of sweet. Nature furnishes an abundance of saccharine matter in vegetables, fruits and flowers, and it remains for us to select the kinds that are both agreeable to the taste and beneficial to the system.

Cane sugar, which is the common article of commerce, answers the first requirement, but physiologists tell us that it is hard to digest, and an excess of it may prove very injurious; therefore, many people conclude that all sweets are more or less harmful. Such is not the case, as we may learn from Nature's own laboratory. In the process of digestion all starch, which is indigestible, is converted into sugar which is readily assimilated by the system, but this sugar differs from cane sugar in its chemical constituents.

It is found that the sugar in honey and in the sweet fruits, such as dates, figs, raisins, etc., is similar to that produced in the process of healthy digestion; and consequently it stands to reason that these will be readily digested and answer the needs of the system. I believe that if honey and the sweet fruits are given to children in the place of candies and sweet cakes made with sugar, their natural craving will be satisfied; and, if the expense be greater, the family doctor bill will be enough smaller to balance.

The expense of honey as an article of diet will not be great, even if one

Continued on Page 22.

The Busy Bee,

The only paper of the kind in the United States which is edited
exclusively in the interest of

Farm Bee-Keeping

Monthly, 50 Cents Per Year.

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I have not the space to tell of the many topics treated, but suffice it to say that it will answer hundreds of just such questions as a thinking person is likely to ask.

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I have made arrangements with one of the leading publishers whereby I am able to offer, for a short time, the above **Five Volumes, Absolutely Free**, to everyone who asks for them when sending me 50c for the BUSY BEE one year. I reserve the privilege to withdraw this offer at any time, so act at once, if you want to take advantage of the greatest bargain ever offered.

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A Monthly Journal Devoted to Farm Bee Keeping and Other Minor Interests of Progressive Agriculture.

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Price, 50 cents per year, payable in advance.

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REMITTANCES—Should be made by express or postoffice money order when it is possible. If these cannot be obtained, put the money in a letter and register it. Never send money in a letter without registering it. When forced to send stamps, we prefer to have one-cent stamps, and they should be folded carefully with paper between them so they will not stick together.

COMMUNICATIONS.

The Editor solicits communications on the subjects treated in this paper. All such will receive careful attention and be given a place in the columns of the paper, if the Editor deems them of sufficient interest to the general public to warrant their insertion. Write on one side of the paper only, as plainly as you can. If you have something of real interest to communicate, do not refrain from writing simply because you think you may not be able to clothe your thoughts in proper language. Tell what you know the best you can, and the Editor will look after the rest.

Editorial.

Send us the names of your friends who keep bees, and we will send them sample copies.

Do you intend to get that crate of St. Joe hives? If so, send in your 50c and the article at once. See December number for full particulars.

We would like to have two or three hundred more accept our offer of the paper for one year for a short article on any subject relating to bees. Send in your contribution at once, as we can use a large number of articles yet. Let the children try a hand at this. By the way, where are our lady readers who might write for the Home Department?

Do not buy everything you see advertised without stopping to ask whether you need it or not, and do not be in a hurry to think you need a thing simply because some writer says it is good. He may have an "ax to grind." Go slow and learn from your own experience what you really need, but do not forget that it is bad economy to use poor tools, or tools not suited to the work in hand.

Early in the spring the Editor of the Busy Bee will take up the subject of handling bees to secure the best possible results, and will try to tell each month just what should be done with them. This will make each number of the paper valuable to the beginner and the farmer who has hitherto given his bees but little thought. Call the attention of your friends who have bees to this fact, and ask them to let you send in their subscription now, so they will not miss a single number of the paper. Tell them that we will gladly return them the money which they have paid for the paper, if they can honestly say at the end of the year that it has not been worth more than it cost them.

Do not trouble yourself should the snow bank around your hives. Your bees will not smother, and the snow will do less harm than you will by trying to shovel it away during the cold weather. All that is necessary is to see that ice does not freeze in the entrance and stop it up. If you set a board up in front of the entrance, as I suggested in a former editorial, there will be no danger of this. If you have not done this, do so now. Just

lean it up against the front of the hive so as to shade the entrance and keep the snow and ice out of it.

Remember, you can still get the "old reliable" weekly Bee Journal and the twice-a-month Gleanings, either of them and the Busy Bee for \$1.00, but no premiums given with this offer.

Send us the names of your friends who keep bees and we will send them sample copies.

BEEES AS AN AID TO THE HORTICULTURIST.

There is hardly a week passes but I come into possession of some new evidence of the importance of bees to the fruit grower. Just the other day the President of the Missouri State Horticultural Society told me of an experience which the growers of large, sweet cherries along the Pacific coast had. They were growing these cherries in California, and from there they were taken north along the coast, but the trees which were thrifty and healthy, would not bear any fruit in the northern locality. They began to investigate the matter, and discovered that it was caused by a lack of fertilization. Bees were introduced in these localities, and they had no more trouble about the cherry trees producing fine fruit in abundance.

THE NO-BEE-WAY SECTION, THE "FENCE SEPARATOR"—THE TALL SECTION.

These are supposed to be new innovations which have lately begun to ask for public favor. The "fence separator" may be new, but the tall section with no bee space is not new. When the writer came to St. Joseph, about fourteen years ago, the principal hive in use here, aside from the old box hive, was the "Crown," introduced by Mr. Armstrong, of Jerseyville, Ill. Tall sections were used in this hive with no bee space in them. The bee-space was in the separator. This was a very good arrangement, and the sections, when filled with honey looked very attractive, and were not hard to clean. The hive was too expensive, however, and so went out

of use. The sections for this hive were made by the G. B. Lewis Co., and I think they have made a few of them every year since that time.

These arrangements have some advantages which may commend them to the large bee-keepers, but I am frank in saying that they have none of sufficient importance to commend them to the farmer bee-keeper or the beginner. The truth of the matter is that honey is honey in most of the markets of the United States, and the majority of those who handle or buy honey would not know a high section from a low one, or the so-called "fence" from an ordinary rail fence. I am thoroughly convinced that for the average bee-keeper the $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{1}{2}$ section, open on four sides, used without any separators at all, is the best thing that can be had. The next best thing is the same section open on two sides only, used with a separator cut out at the top and bottom. Better not be in a hurry to throw any of your old supers away in order to get new ones suited to the tall sections. The farmer bee-keeper and the beginner can better afford to use the fixtures they have, if they are new and modern.

DO NOT FUSS WITH YOUR BEES IN THE WINTER.

I am led to emphasize the statement which I have taken for a heading, owing to the fact that my attention has been called to a remark made by a gentleman who was purchasing some sections a week or so ago.

He said he wanted them now, so he could fix his bees up for summer while it was cold. The presumption was that he wanted to do this while the bees were not flying, in order to escape the possibility of being stung. The party who sold him the sections informed him that he would probably have no use for them, if he put them on now, as he might not have any bees left in the spring to occupy them.

It does seem strange that people will not learn to let their bees alone in the winter, but I am not sure that they are entirely to blame for not knowing any better. I took up a paper the other day which is published in this city, and found a long article in the December number on the importance of feeding bees at once. The

method of feeding explained was to give them sugar syrup. Now, this advice might have been all right two months ago, but if followed in December of this year, it would have proved very disastrous in this locality. The trouble was that the article had been copied by an editor who knows no more about bees than he does about the gold mines of Klondyke—the little which he has heard and read.

Moral—Get your bee information out of a paper which is edited by a practical bee-keeper.

Send us the names of your friends who have bees and we will mail them sample copies.

I am asked by a correspondent what I think of Carniolan bees, and in reply will say that I consider them a most excellent bee. However, I would not recommend them to the farmer or beginner, as it is very hard to get those which are pure. Then, there are so few of them in the country that they cannot be kept pure very long. A cross between them and the Italians produces a fine bee, and a very desirable one.

THE SOUTHWEST.

Two Papers for the Price of One.

This is the name of an agricultural paper, now in its fifth year, published at Springfield, Mo. It is especially devoted to the interests of those engaged in rural pursuits in the Southwest, as its name would indicate, but as it carries every department of a first-class agricultural paper, its subject matter will be found of interest in any locality. It is published twice a month, and is edited by an up-to-date agriculturist. It is printed in bold, clear type, and on good paper, and the subscription price is only 75c per year. Notwithstanding the low price at which the paper is furnished, I have been able to make arrangements with the publisher so that I can offer it and the Busy Bee both for 75c. Think of it, three first class papers per month and only 75c per year. Send for sample copy at once, and address as above.

We have plenty of both comb and extracted honey which we will sell at prices to suit the times.

THE DAILY PAPAR.

The daily paper is an important factor in the development of the boy on the farm. It keeps him in touch with the world outside. It makes him feel that he is part of it because he knows what is going on there. He takes pride in keeping himself posted about current events. I have been pleased to note the manner in which many farmers' boys make use of the daily paper. They read it carefully; they remember what they read, and they are actually more familiar with what is going on in the world than many of their city cousins. They read for information, and the information they get is made use of in one way or another. An item of information may not be of great benefit in itself, but the habit of gathering these items is of the utmost help.—Rexford.

You can get the St. Joseph Daily Times and the Busy Bee, both one year for the small sum of \$2.50, why not send us \$2.50 today and know what is going on in the world every day in the year?

IS THIS YOU?

A man started in the livery stable business the other week, and the first thing he did was to have a big sign painted representing himself holding a mule by the bridle. "Is that a good likeness of me," he asked of an inquiring friend. "Yes—it is a perfect picture of you; but who is the fellow holding you by the bridle?"—Credit Lost.

The publisher of the Busy Bee pays the highest market price in cash at all times for beeswax.

TEN PACKETS OF SEEDS FREE.

To every one who sends me 50c for the Busy Bee one year, and asks for this premium, I will mail TEN PACKETS OF CHOICE SEED FREE, as follows: Radishes, Turnips, Onions, Beets, Parsnips, Lettuce, Cabbage, Tomatoes, Verbenas and Sweet Peas. These will be all of some good variety put up by a well known seed firm. We have been planting seed from them in our own garden for several years, and we have never known any of them to fail to grow.

YOUR PAPER FREE.

We want communications on all subjects treated in the columns of the Busy Bee, and I make the reader the following liberal offer. Send me an article on a subject of your own selection suitable for any department, preferably bees or agricultural education in the public schools, of not less than 250 words or more than 600 words, and I will send you the paper free of charge for one year. This offer is not made to professionals but to every reader of the Busy Bee who has an idea, and can put it on paper so it can be read. Write on one side of the paper only and as plainly as you can. Never mind the spelling or grammar, we will fix that.

What I want is ideas, and many people who have never written an article for publication in their lives have some very valuable ideas. Remember this is a farm paper, and you should have that class of readers in your mind when you write. The paper will be given for all articles we can use. If not used, they will be returned, if the writer so requests, and encloses return postage.

When you are in the city, call at the office of the Busy Bee, 108 South 3d street, and see a sample of our Premium Machine. It will stand inspection. You will never be able to buy a better one for the money, if you live a hundred years.

The Busy Bee is under obligations to the State University, Lincoln, Neb., for a number of valuable bulletins. Among them is one on "Pruning," which should be read by every grower of trees in the state. It is free. Write for a copy.

"A German treatise on bees, published in 1692 says, bees are fond of music; when one flies about your head threateningly, whistle a merry tune, and it will immediately become pacified!"

The trouble is that so many people are apt to find it hard to make their "puckering string" work about that time.—Editor.

AGENTS.—Can make good money soliciting subscriptions for the Busy Bee. Write for terms.

Communications.

AN EXPERIMENT.

Mitchell Co., Kan., Dec. 29, 1897.

Editor B. B.—I have but few bees,—in fact one living in a small town with neighbors all around him does not want an over stock of bees. They become a source of annoyance to themselves and also to others, especially in the swarming season. My neighbor does not care to have my bees come over in his door yard and settle on his fine plum or pear trees, neither does he like to keep all his doors closed to prevent them from coming into his parlor or dining room. Besides the owner of the bees must of necessity intrude on his neighbor's premises to hive them, therefore, this last summer I conceived a plan to obviate all this trouble, how well it will succeed is yet to be found out.

I built what I call a bee house, or one grand hive. My hives is 8x8x7 feet high well built, a good shingle roof, a good tight floor, drop siding, no windows and two rows of shelves inside wide enough to receive one hive. Opposite each hive I bore eight half inch holes, and through these the bees have access to the outside world. The advantage I expect from this kind of management is this, my bee hives are always protected from storms either winter or summer, and when I wish to take or examine for honey I have every advantage of cross-bees. When they are disturbed they at once will rush outside to see what the trouble is, I remaining all the time inside will not be stung. This method of management of a small apiary in a town or city also is a safe guard against honey thieves as I carry the key to the situation myself. And I think will prevent the strong hives from robbing the weaker ones. I think it will also be a complete safeguard against the bee miller. It is my opinion now that the few strong colonies I now have in my bee palace will eventually consolidate in one grand colony and I will not be bothered with late weak swarms coming out as I have been heretofore. However this is largely an experiment with me. After this next season I will be able to tell more about it. My

bees did not swarm this last season but became very rich. At some future time I will say more on the subject.
M. TODD.

BEES AND HORTICULTURE.

Editor: I have lately had my attention called to the fact that there was a great difference in the yield of honey from colonies located only from one to two miles apart. Judging from this, orchardists, farmers and gardeners, will not get the full benefit of their crops of fruit, vines and clovers if they do not keep bees upon their own fields. Especially is this true if the weather should be foggy and damp during the blooming season.

Specialists in bee culture know that a good place to locate an apiary is near large orchards, seed farms, alfalfa or alsike clover fields, pickle farms, etc. Those who raise cucumbers under glass find they must have bees in their green house or their cucumbers will not set. Those who are engaged in these pursuits, unless there are large apiaries near them, should cultivate bees as well as fields.

"He who would live at ease, should cultivate both fruit and bees." It would be better for the welfare of our country if bees were more equally distributed. Very large apiaries are not as desirable, as that every orchard and farm should have sufficient workers to gather the nectar, and fertilize the bloom. It is not necessary that every farmer should be a skillful apiarist and secure large crops of honey, but he should keep bees in large hives, well protected from the intrusion of stock. Where horses and other animals have been injured by being stung, it was usually the result of carelessness. Hives should be well protected and not placed near hitching posts nor drinking places.

Plant for Bees.—Bee keepers who have experimented along this line, claim that it does not pay to plant for honey alone; but there are many crops and trees that can be grown, that have a dual value, such as the clovers, alsike and white. What is more beautiful upon the lawn than the linden or basswood, sweet clover, *Mellilotus alba*, and *Mellilotus officinalis*, which are yearly gaining in favor as food for stock and bees, and are fast rooting out dog-fennel and other noxious

weeds, from roadsides and waste places. They thrive on gravelly knolls, railroad embankments and rocky hillsides
MRS. L. HARRISON.
Peoria Co., Ill. in Rural World.

Republic County, Kan., Nov. 30, '97.
Editor Busy Bee:

Dear Sir:—Sample copy of the Busy Bee received. Thanks for same. I shall send in my subscription soon, either direct or on some clubbing offer with some of the other bee journals. I take at present "Gleanings" and A. B. J. I think the "Busy Bee" good, especially for western readers. I am glad to see it almost wholly devoted to bee culture.

The season has been very fine here. I increased my number of colonies from thirteen to seventeen; got quite a crop of surplus—both comb and extracted, and besides this reared 235 queens. I have been rearing queens more or less for seven years past. I now make (in my home yard) a specialty of the Golden Italians. After testing quite extensively three races of bees, and many different strains of these from nearly a score of different sources, I have at last decided upon the Golden Italians as the best bees all things considered, for this part of the United States. I have developed my strain by crossing three of the best strains of the Golden. I have also requened all of the bees for miles around with choice selected queens of this fine strain, and so can absolutely guarantee the mating of my queens. This I have done right along, and in the 235 reared and mated this year, none were mismated to my knowledge. No complaint was made regarding same, though I sent to nearly a dozen different states, to Canada and a lot (indirectly) to the West India Islands.

I have tried the Gray Carniolans and like them well, but they have one quite serious fault, their great swarming propensity. Otherwise they please me very much. This season I gave my bees scarcely 1-6 of my time, but next year I intend to devote much, or all, of my time to queen rearing.

I intend to start at least one out apiary—at a safe distance—and there rear the Gray Carniolans, as there is getting to be quite a demand for them, especially in the north and on the Pacific coast. With this end in view

I (late this fall) provided myself with two fine imported and two fine home bred breeders of this race, besides a few other select queens. The imported are not related, and I intend to rear queens from one and drones from the other and so secure a direct cross.

Respectfully yours,

JOHN W. KUHN.

ADVERTISERS TAKE NOTICE.

The A. I. Root Co.,
Bee-Keepers' Supplies. }

Medina, Ohio, January 4, 1898.

Dear Sir and Friend: I have taken pleasure in pushing your journal, and expect to keep on doing so, for I like your style; for I know that you are not one of the kind who will give a stab in the back, but do your stabbing, if done at all, on fair and open ground. I admire very much your practical thoughts and the common sense you throw into all you write; and I see no reason in the world why your journal should not be a hustler, if it continues on the lines it is on now.

We want that advertisement to appear in your paper, for we believe it is going to pay us to use your medium. A man who can write as you do is bound to draw a good class of people.

THE A. I. ROOT CO.,
E. R. ROOT.

The above extract from a private letter from one of the keen, shrewd advertisers of the country, and one who on general business principles would not be expected to help on the Busy Bee very much is greatly appreciated by the publisher of the Busy Bee for the spirit it breathes. I do not think there will be any occasion for "stabbing" under this kind of treatment.—Editor.

Poultry.

THE TIME TO BUY AN INCUBATOR.

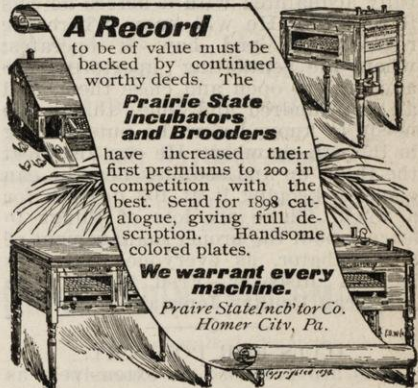
If any of our poultry friends are thinking of investing in an incubator, right now is the time to do it. I made this suggestion to a gentleman a few days ago, and he said: "why, bless your soul, I don't want to hatch chickens in winter, I want to hatch them in spring!" "That is just what I supposed," said I. "If you get your incu-

POULTRY SUCCESS is practically the theme of our new Poultry Guide and Combined Incubator and Brooder Catalogue. It tells all about the **RELIABLE INCUBATOR** and a great deal about the profits of poultry; about feeding—especially for egg production; about Pekin duck farming; leading character-



istics of 25 varieties of fowls, ducks, geese and turkeys; about killing and dressing, for market, building, numerous to mention here. Sent for 10c. anywhere.

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POSITIVE MONEY MAKERS
 THE NEW STYLE SUCCESSFUL INCUBATOR AND BROODER. Our NEW CATALOGUE and BOOK on POULTRY tells all about them and many OTHER THINGS the poultry man should know; worth a dollar but we send it for 6c. in stamps. Address the **Des Moines Incubator Co.** Box 428 Des Moines, Iowa.



bator now and study it all winter, while you have the leisure, don't you think you will know more about it and be better prepared to do business with it than if you wait until it is time to start before buying?"

He saw the point and will send in his order in a few days. The man who buys an incubator in the autumn or early winter is wise. He can play with it two or three months and get fully acquainted with it before he sets it to work. He will know where the regulator is and how it operates; where the ventilating apertures are and how to open and close them, and all the hundred and one things he needs to know before he puts an egg in the egg chamber. He can also heat the thing up and see how near he can come to keeping it at 103 degrees for a week. There are lots of things to learn about the proper management of an incubator, as everyone who tries it will discover.—Fred Grundy in American Poultry Journal.

OATS FOR POULTRY.

Oats are not used as extensively as wheat for poultry, yet no grain is superior. There are undesirable portions of oats, such as chaff, hence, unless they are fed more plentifully at each meal than wheat they will not prove satisfactory. Oats should be fed three times a week, by way of variety, allowing a pound to ten hens, and the hens should have a plentiful supply of sharp grit when the oats are given, as many objections to the use of oats are traced to the lack of grit. When using ground grain oats should always be added, as they render the mess more valuable and palatable.—Western Poultry Breeder.

THE CAUSE OF THE EVIL.

One of the causes of soft-shelled eggs can always be traced to overfeeding. Whenever the hens begin to lay eggs with soft shells, nothing can be done to prevent the evil but to reduce the hens in flesh, which may be readily

IT'S EASILY HANDLED A CHILD OPERATES THE PALACE INCUBATOR



30 DAYS FREE TRIAL BEFORE BUYING.
 WE PAY THE FREIGHT.
 OUR CATALOGUE EXPLAINS ALL. WRITE FOR IT.
 ADDRESS TO **PALACE INCUBATOR CO.**
 BOX 133 **MERRIAM PARK, MINN.**

done by placing them on short rations for a while and compelling them to work for every ounce of food they get. The custom is, when the shells are soft, to give the hens oyster shells, in order to provide lime for the eggshells, but the remedy is not known to be effective. The size and shape of the eggs depend upon the condition of the hens, and it is because fat is an obstruction to the laying hens that the eggs are imperfect in any respect. Active breeds are not so subject to this trouble as are the large breeds that are kept in confinement.—The Feather.

There are grounds for hoping that in time we may be able to keep down insect pests by the aid of birds, friendly insects and contagious insect diseases. There does not appear to be any method in sight, however, for fighting plant diseases except the use of fungicides. The use of the spray pump is steadily and rapidly spreading, and it is now indispensable to growers of vegetables, hops and fruit.—Oregon Agriculturist.

Now is the time to buy a sewing machine. You will never get one any cheaper. The "Peerless" is first class and guaranteed to give satisfaction.

Book Review.

The Nebraska Farmer and the Cultivator have joined forces, and hereafter the paper will be issued from Omaha as a weekly, under the name of the Nebraska Farmer. The combination of two strong papers should make one very good one.

The Live Stock Indicator, of Kansas City, Mo., has lately been added to our list of exchanges, and we desire to call special attention to the "Farmers' Institute Editions" which appear monthly. They are exceedingly valuable, and should be worth the price of the paper to its readers. If our agricultural papers would do more of this class of work, it would be a great benefit to the country.

The Busy Bee acknowledges the receipt of the December number of the popular magazine entitled "The New Time." It is published by Chas. H. Kerr & Co., Chicago, and is devoted to political reform and social progress.

The December number contains some very interesting and instructive articles. You can probably secure a sample copy by addressing the publishers.

Campbell's Soil Culture has moved to Omaha and donned a new dress. It has also added to its other interesting features a home department, and taken up the active work of urging the importance of agricultural education in the public schools. The Busy Bee is glad to have the aid of such a strong and valuable paper in this line.

The Bee-Keepers' Review came to our table last month in a new dress and printed on fine, heavy paper. It makes a very neat and attractive appearance, and is a credit to its publisher, W. Z. Hutchinson, Flint, Mich. The Review is not only well gotten up mechanically, but its subject matter is of a high order, as it numbers among its contributors some of the ablest writers in the country, and has for an editor an advanced thinker and writer. We commend it to those who are looking for a first-class paper on advanced bee-culture. The price is \$1.00 per year, but we will club it with the Busy Bee for \$1.00, the two papers for the price of one, for a short time.

Attention Please!

We wish to send you a free sample copy of "THE SOUTHLAND QUEEN," the only Bee Paper published in the South. It tells all about Queen rearing, handling bees, etc.

THE JENNIE AITCHLEY CO.,
Beeville, Bee Co., Texas.

COMB FOUNDATION Wholesale and Retail

WORKING WAX into Foundation for CASH A SPECIALTY,

At Reduced Prices During the Winter. My Foundation will SPEAK FOR ITSELF, and prices are O. K. So do not fail to write for a Catalogue with prices and samples.

Beeswax taken in Exchange for Foundation or any other Supplies.

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AUGUSTA, WIS.

Letter Heads, Cards,
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We have a choice lot of cuts suitable for dealers in Bees, Honey or the Hive business. Call on or write for prices.

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For Dyspepsia, Constipation, Diabetes and Obesity. Unlike all other Flours, because it contains no bran and little starch—which cause acidity and flatulence. Nutritious and palatable in highest degree. Unrivalled in America or Europe.

PAMPHLET AND SAMPLE FREE.

Write to FARWELL & PHENES, Watertown, N. Y.



MONEY IN HONEY!

The Weekly American Bee Journal
Tells all about it.
Sample Copy Mailed Free
G. W. YORK & CO.
118 Michigan St., CHICAGO, ILL.

We have received from the Secretary of Agriculture two very valuable "Farmers' Bulletins," No. 64, "Ducks and Geese," and No. 63, "Care of Milk on the Farm." The latter is a popular treatise on the care of milk, which should be read by every man and woman in the land, who has anything to do with milk. If its instructions were followed out, I am sure a deal of suffering and numerous lives would be saved. Clean, pure milk is an excellent article of diet, but in too many cases it becomes by carelessness a harbinger of disease germs which cause sickness and death. Get Bulletin No. 63 and read it.

No. 64 is a 48 page illustrated Bulletin which gives a concise history of all the leading breeds of ducks and geese, and the best methods of management. Every breeder of ducks or geese will find it suggestive and helpful. Either, or both, of the bulletins can be had for the asking. Address, Secretary of Agriculture, Washington, D. C.

Send us the names of your friends who keep bees, and we will mail them sample copies.

Success is the name of a new magazine published by the Success Publishing Co., of New York City. If all the issues are as good as the January number, I cannot commend it too highly. I should be glad if a copy of it could be placed in every home in the land. It is finely illustrated and every page is packed with helpful and interesting reading. It is a monthly and the price is only \$1.00 per year. The Busy Bee and Success will both be furnished for the price of Success. I shall take great pleasure in giving it further notice in the future.

BUSINESS.

The following advertisements appear in the columns of the Busy Bee for the first time this month:

Gus Dittmer, Augusta, Wis.; The Rural Home, St. Louis, Mo.; another ad of the A. I. Root Co., Medina, Ohio; Geo. W. Murphy & Co., Incubators, etc., Quincy, Ill.; Prairie State Incubator Co., Homer City, Pa. Incubators, brooders, etc.

Send us the names of your friends who keep bees for a sample copy of Busy Bee.



125 A Year. MANHATTAN BLDG. CHICAGO. 10c A Copy

Is a 96 page monthly magazine. During the year 1898 we will eclipse all former efforts in agricultural publications. Subjects of absorbing interest, replete with valuable information and well supplied with entertaining reading for all the members of the Farm household, will be contributed by the best authors. Beautifully illustrated throughout. Stories by best writers. Special departments for Poultry, Live-Stock, Dairy, Gardening, Etc., Etc. Subscribe to it.
\$1.00 a Year. 10c a Copy.

The GENTLEMAN FARMER
Manhattan Building
SAMPLE COPY MAILED FREE! ❀ ❀ Chicago

WE ARE THE PEOPLE

WHO CAN TURN OUT

..FENCES..

(cleated separators)

AND

PLAIN SECTIONS

(sections without insets)

FOR 1898

Having special appliances and machinery, we can make them right. Nothing in late years has seemed to stir such a furor in the Bee-keeping World as these new goods. If you don't know about them, send to

THE A. I. ROOT CO.,

MEDINA, OHIO.

New 1898 Catalogue, largely re-written, out by January 15th.

The publishers of the Busy Bee can not undertake to be responsible for any of the acts of those who advertise in its columns, but he will not knowingly admit the advertisement of anyone who does not deal fairly with the public. He will deem it a special favor if those who write to our advertisers will mention the Busy Bee, and should any of them fail to carry out his contract with our readers, we hope they will inform us at once.

The ad of the Gentleman Farmer will be found in another column. This is another paper which I take pleasure in commending to our readers. By a special arrangement I am able to offer the Gentleman Farmer and the Busy Bee, both for 85 cents, less than the price of the Farmer.

If there is anything you want to know about bees, put it in the form of a question and send it to the Editor and he will take pleasure in answering it in a future number of the Busy Bee.

Dovetailed Hives very cheap.

Write for 1898 Price List to E. T. Abbott, St. Joseph, Mo.

There is one fact connected with the honey bee, that I have never seen noticed by writers upon bee-culture; and that is, when following their natural instinct in selecting a home in the forest, they invariably select a tree within a few rods of water in some shape—a stream, pond, swale, or low ground where water stands in the spring.—American Bee Journal, 1861. Do they, who knows?—Editor.

"The first bee makes its appearance in the amber of the Eocene."—Hugh Miller.

This is one of the earliest of geological periods. Perhaps the bee is older than we have yet dreamed in our philosophy.—Editor.

Subscribers are what count in the prosperity of any kind of a paper, and we are determined to have them, so here is another special offer. We will send the Busy Bee one year to anyone who will send us 50c to pay for the same, and mail them free of charge one Porter Bee Escape as a premium. The escape sells for 20c, and everyone who has bees will find it very valuable.

SWEET CLOVER SEED

(White)

25 pounds	\$2.25
50 pounds	4.00
100 pounds	7.50

BERTSCH & FLIEMAN,
Holland, Mich.

The Rural Home

A progressive Farm and Family Paper, issued twice a month in St. Louis, wants you to become one of its family. As

A Special Inducement,

You can have THE RURAL HOME four months for Ten Cents, or one year for Thirty Cents. A trial subscription will convince you of its merits better than anything we could say.

S. H. PILE, Publisher,
810 Olive St. Saint Louis, Mo.

Scotch Collies'

("Shepherd Dogs") puppies for sale, trained and registered parents of finest breeding. "Braehead" Smuggler (imported) in the stud. Fee \$10.00. Address

Frytown Kennels,
Hannibal, Mo.

Muth's HONEY-EXTRACTOR

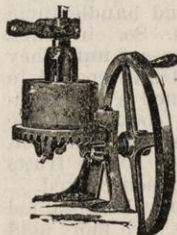
Square Glass Jars.

Root's Goods at Root's Prices.

Bee-keepers' supplies in general, etc., etc. Send for our new catalogue. "Practical Hints" will be mailed for 10c in stamps. Apply to

Chas. F. Muth & Son, Cincinnati, Ohio.

Green Cut Bone.



There is nothing better than this to make HENS LAY.

MAN' BONE CUTTERS are as good as the best. I can sell you one, cheap.

Write for prices.
E. T. ABBOTT,
St. Joseph, Mo.

HOME DEPARTMENT

Continued from Page 10.

has no bees—as every one living in the country should have—if extracted honey is bought in bulk. Reliable bee-keepers furnish it in 60 pound tin cans at a price that is but little above the cost of granulated sugar. If it is candied, as almost all pure honey will be at this time of the year, the can may be placed in a large dishpan, with thin strips of wood in the bottom of the pan for the can to rest on. Fill the pan with hot water and set on the back of the kitchen stove. Leave it there several hours, not allowing the water in the pan to boil, until the honey is liquified. If it has not been heated to the boiling point, the honey will be as fine as when new, but overheating will spoil its flavor and color. If one does not care to go to this trouble, or to save the can the top may be cut out with a can opener, and the granulated honey eaten in that shape, or liquified in smaller vessels.

Dates, figs and raisins are generally considered luxuries, but they really cost no more per pound than any other dried or evaporated fruits, except apples, and they have much more food value than berries, cherries or peaches. If these are habitually used as desserts in the place of pies and cakes, my word for it, the health of the family will be improved, and the house-mother, upon whose shoulders so many burdens are laid, will be relieved of the no small labor required for the preparation of less wholesome pastries.

These fruits should never be eaten raw. The Turks, who pack the figs, and the Arabs, who send us the dates, do not enjoy a reputation for that attribute that is next to godliness, and in the long journey to our doors they are exposed to dust, dirt and microbes in variety.

The grocerymen, too, leave them exposed to the dust-laden atmosphere of the store and street, and handle them with unwashed hands. So, in fact, they are not really fit to eat until they are thoroughly washed and cooked in boiling water, or steamed a few minutes. Raisins are fine cooked on the stem, the surplus water drained off, and served in that way. These fruits require no sweetening when cooked.

A pleasant variety may be obtained by mixing dates or figs with more acid

fruits and cooking together without sugar. The proportions of each required will vary with the acidity of the other fruit. A custard sweetened with dates, washed and cut from the seeds, makes a delicious dessert. Dates are a wholesome and nutritious food. In the countries where they grow they form the principal diet of the natives, the seeds even being ground into meal for cattle.

The theory that the diet affects the disposition and the morals of individuals finds many adherents, and it would seem, from the words of the prophet quoted above, that it is a very old one. If it be true that the gentle and patient kine yield up like qualities with their milk, and the mild and mellow influence of honey reaches beyond the physical senses, then it behooves us all to be unsparing in their consumption, even if, in order to do so we have to economize in some other direction. Whether this be true or not, certain it is that on general principles any mode of living that affects the health of mankind affects their mental and moral well being likewise. A healthy child is a happy child, and a nervous, fretful one is sure to be ailing.

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The Dowager Empress Frederick of Germany takes great interest in all occupations of country life, and has lately turned her attention to bee-keeping, which she considers a most useful industry for the peasant population. In order to encourage bee-keeping, she has become the honorary president of the Wiesbaden District Bee Society.—Christian Register.

Parks' Section Former.

It will do first class work, and as much of it as a machine costing more. The sections are square made on this machine and it cannot get out of order. Price \$1.00.

THE AMERICAN BEE-KEEPER.

Published monthly (now in its eighth year), 50c per year. Its contents are furnished by the best writers on the subject of bee-keeping. Published by THE W. T. FALCONER MAN'G CO., JAMESTOWN, N. Y., manufacturers of all kinds of bee supplies. Large illustrated catalogue and copy of the AMERICAN BEE-KEEPER free.

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in the market, and sell
them at low prices.

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Supplies.

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E. T. Abbott, St. Joseph, Mo., Special Agent for Southwest.

Mr. Abbott Sells our Hives and Sections at Factory Prices.



We also manufacture Tanks of either wood or galvanized steel, all sizes, any form, and for all purposes.
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BEE-SUPPLIES

We have the best equipped Factory in the West. Capacity—one carload a day; and carry the largest stock and greatest variety of everything needed in the apiary, assuring **Best Goods at the Lowest Prices**, and prompt shipment.

Illustrated Catalogue, 72 Pages, **FREE**.

E. KRETCHMER, Red Oak, Iowa.

THE REVIEW AT REDUCED RATES.

The Bee-Keepers' Review is \$1.00 a year, but, for the sake of getting it into new hands, and being able to begin the year with a large list, I will, until January 1, send free to each new subscriber a copy of "Advanced Bee Culture, a 50 cent book of nearly 100 pages, that gives briefly but clearly the best methods of management from the time the bees are put into the cellar in the fall until they are again ready for winter—32 chapters in all. Those who prefer can have, instead of the book, twelve back numbers of the Review, the selection to be mine, but no two numbers alike. All who send \$1 now will receive the last four issues of this year free, and the Review will be sent to the end of 1898. If not acquainted with the Review, send 10 cents for three late, but different numbers.

Address W. Z. Hutchinson, Flint, Mich.

Gleanings at Reduced Rates.

New subscribers sending us \$1.00, or old subscribers who send us

\$1.00 Before Their Subscription Expires

will receive a copy of the A B C of Carp Culture, 70 pages, price 40 cents, postpaid, the pages the size of these; or we will send, in place of the carp-book, one copy of

Winter Care of Horses and Cattle,

by T. B. Terry, a book of the same size pages as the carp-book, 44 pp.; price 40 cts., postpaid; or in place of either one of the two we will send

Maple Sugar and the Sugar Bush,

a book of the same size pages, costing also 40 cents, postpaid. Remember, in order to get one of these valuable books all you have to do is to send \$1.00 for Gleanings, and 5 cts postage, and we will give you one of them free. Remember, old subscriber, to be entitled to this offer must pay up all back subscription, if any, and send in \$1.00 for a year in advance with 5 cts. for postage.

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