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THE CALIFORNIA



APICULTURIST.

VOL. I. NO. 8. OAKLAND, CAL., SEPTEMBER, 1882. {TERMS: \$1.00 PER YEAR. IN ADVANCE.

Our Workers.

[For the APICULTURIST.]

THE CALIFORNIA HONEY PRODUCT, PAST AND PRESENT.

JNO. G. COREY, SANTA PAULA.

THE bee-keepers of California are now and then treated to some very amusing reports of their doings; for example, about two years ago there appeared in the English newspapers a statement that most of the bees in America were owned by the Thurbers, of New York; that they were farmed out in lots of 25 and 50 to farmers, who attended to them for a certain share of the product. This article was extensively copied by a great many American newspapers, who, without any knowledge upon the subject, were very easily "sniped." And now, in 1882, comes Joseph M. McCaul, agent of Messrs. Thurber & Co., and rushes over portions of the honey producing counties of southern California, and reports to "Bradstreet's"—which is copied by the Weekly S. F. *Bulletin*, estimating 90 to 100 tons as the honey crop the present year for Southern California. Ventura County alone has produced 110 tons this year, and certainly Los Angeles, San Bernardino, San Diego and Santa Barbara Counties have produced some. The honey crop of California for 1878 was estimated by him at 360 tons, while the figures made by the Ventura Bee-keepers' Association for that year show that we produced 40 tons more honey in this county than he gave the entire State credit for.

The folly of these crazy reports ought to be a good lesson to parties seeking correct news, to look out in

future, and see that their reports come from some reliable source.

The yield the present season has been very light, and confined to warm locations quite remote from the sea coast, the warm canyons being most favored, and even in these localities the secretion did not appear until July.

The statement of Mr. McCaul, as to the cause of the frequent failures to produce honey in this section, were frequent fires and pasturage of the bee ranges by herds of sheep. Our experience differs with this; as only one year is lost, and the bee range is improved by fire. Then the sheep do very little damage to a good bee-range, as the surface of the mountains is so rough that it produces no grass, and is not approachable by sheep, nor any animal, except now and then a deer or grizzly bear. The true causes of our failure he did not discover.

In 1877 we had only 4.35 inches of rainfall, and as a consequence had no flowers to secrete anything. In 1878 our rainfall was over 20 inches. Cold weather continued until June, when favorable weather set in, and we produced over 200 lbs. to the colony that year. In 1879 we had 9 inches rainfall, followed up with cold weather during the whole honey season; the entire country was a sea of blossoms, but lack of moisture and unfavorable weather prevented secretion, and we made no surplus. The year 1880 we had over 20 inches rainfall, but the weather remained cold so late that it was a good year for increase, but below an average for surplus honey. In 1881, with 12 inches rainfall and cold weather, notwithstanding our bee ranges were covered with bloom, we had no secretion of any importance during the entire honey season, and as a consequence

made no surplus. The present year, with 10 inches rainfall and cold and unfavorable weather, with abundance of bloom of every kind, we had no secretion until after July 1. Our bees did well in warm locations, and produced from one-fifth to one-sixth of a crop, taking the county over.

A careful review of the causes of our failures to produce honey every year will be found to be lack of moisture and unfavorable weather, and not frequent fires and herds of sheep.

The question of sowing seeds of honey producing plants looks well on paper; but to the honey producer, who looks to the high, rugged, rocky and almost inaccessible mountains for his forage, it looks very unreasonable. The bee-keeper who has rolling hills, with good soil, might cultivate honey producing plants; but the bulk of the honey produced in southern California must come from the high rocky mountains and from wild indigenous shrubs and plants.

[For the APICULTURIST.]

DEFENDING THE ITALIANS.

J. D. ENAS, NAPA CITY.

IN response to Mr. Rumford's article on page 46 of the June No., I would say that Italians are able to keep the moth's out, as my experience of this and the past season fully prove.

I would like to show my friend the inside of my hives. I think he would have a tiresome hunt. He would not be the first nor only one that would be surprised at the almost non-appearance of moth worms. I suppose I may be a little ahead, in speaking of the certainty of keeping out moths; and I really believe that

moths will enter any hive that will allow a bee to enter; but one thing certain, I have a strain that will drive all worms, or moths even, from the combs, and my hives are so made as to assist the bees to follow and ferret out any worm that may attempt to get a quiet resting place inside the hive. There, and just there, Mr. Editor, is one of the *secrets* of a good *hive* and of a good *swarm* of bees, as Mr. R. is pleased to call it. I know nothing about his style of hives, or the inside fittings. It may be that that point is one that our friend has overlooked. If there are lurking places, where bees cannot go, and the worms can, in the hive, then that point should be remedied, the first thing before the bees are blamed. I have studied from the various works on the subject of the adaptation of the hive to the wants and necessities of the bees, and build my hives accordingly. I am still *learning*. I find there should not be any spaces less than $\frac{1}{4}$ inch, or more than $\frac{3}{8}$ inch, about the frames. Less than that space the worms can crawl into, and hide until they become moths; and more than that, the bees will build comb in, and in breaking the frames loose, honey will leak and daub things generally, and robbery will be started. I have had Italians since 1877, and try to get them *pure* as possible at all times. I think I am on the right road. Since I have had Italians, I have had very few worms or cocoons about my hives. I have opened hive after hive without seeing signs of any. Sometimes I find a cocoon near the entrance blocks, sometimes under the burlap cover where it comes down and touches the frames; but very seldom on the combs this season; and some of my hives have two sets of combs—one below and one above. I would like to and take pleasure in showing, to Mr. R. or any one who is interested, the inside of any hive on my place; and if he or any one else can show hives cleaner of worms, he must have graduated from the A. B. Class. I don't propose to discuss with any one, just for the purpose of discussion, as I am fully convinced that the superiority of Italians over blacks, to take care of their combs, is well known to any one who reads the bee literature of the day, and will take the pains to practice for themselves what they read.

I think our friend has had a very poor strain of Italians, if, as he states, he has not been able to get a moth-proof strain. Perhaps he aspires too high; how would a worm-proof do? The moth is not so bad as the worm.

For the proposition of Mr. R. in the June No., I would refer to his article, "Why do Bees Swarm?" on another page. He says, "After following the swarm a few rods, I had to let them go." Who ever heard of hiving a swarm after following them? If they got so far as to get the party after them *in the rear*, their chance of escape was good, even sure; and perhaps the moth-proof might be so far ahead that the destruction or extra work in consequence would result the same.

I would consider Mr. R. a poor hand for the purpose of testing the qualities of the different strains; and not knowing the make of his hives, nor having a good opinion of his superior judgment and experience in the management of bees, even should he have 200 swarms, I should be loth to submit the reputation of my strain to his care. At the same time, should a convention of bee-keepers wish to have a test of their different strains, I am willing to enter the lists, and have a fully competent bee man, or a committee of three, chosen for the purpose, and the queens given a fair and square trial, with chances all alike, the same treatment to each, and a report without bias or partiality, and am willing to rest on those merits.

Should friend R. wish to purchase, I will send him as good as I have, and consider it a cheap investment. He can report afterwards, if he so concludes. I hope he will give more of his experience through those channels where the fraternity may get the benefit.

[For the APICULTURIST.]

WHY ARE DOLLAR QUEENS THE BEST?

I. B. RUMFORD, BAKERSFIELD.

DURING the past year or more there has been very much said in the different bee journals against dollar queens and against the business of raising them, as though it was rather a disreputable business and tending to degrade

apiculture and lower the quality of the queens, consequently of the bees. Now, is there any truth in or good honest excuse for all this talk against such queens? This is a question that has often come up in my mind. I have read about all that has been written upon the subject, and for all the hue and cry see nothing so far against them, but rather much in their favor; and though this article may call down upon me a howl from some who are selling queens, and prefer to keep them all until tested, then sell for two or three dollars each, I must say, as a rule, I would rather take chances on the dollar untested than on the tested queens; for all the difference that there can possibly be is once in a while a queen would be sent out that had mated with a hybrid drone instead of pure Italian; but in the great majority of cases they must be good and truly mated, or the raiser would be poorly situated for the business, and soon have to go out of it, if he tested them himself and had to discard three-quarters. That would break him up; and if the queens he sent out proved the same way, he would soon have no customers. Now, the principal reason why I would prefer the untested to the tested queen is if, in testing, say 100, the dealer should find one or two that were in any respect very far superior to the rest, he would not send them out, but keep them to improve his own stock, if he did as all claim to do—make it a point to improve the quality of his bees by breeding only from the best—so it would be quite impossible for a purchaser of tested queens to get one of those very superior ones. No, the breeder will always keep them, and the customer must take the culls. Now, don't get on your ear, friends; I do not say you will send out any very bad queens; and some of you are no doubt so conscientious you will send no queen but what you would be willing to keep for your own use; but you surely would not let that most extraordinary fine queen, superior in every respect to any you ever saw, go out to run the risk of being lost in the mail. No, you never agreed to send such a queen for three dollars—you would not take twenty-five for her—so your customer has no chance to get her. But suppose the hundred queens had been sent out before you waited

to see if their progeny were pure; they would be just as good as if you had kept them so much longer; and as you would not know about that extra fine twenty-five dollar queen being in the lot, some one of your customers would have been the gainer. So, unless some writer can show us a good reason for preferring tested queens, I shall send for the untested all the time after this, in the hope of getting that twenty-five dollar one, and will now send word to friend Doolittle to change my order from a tested to untested queens.

[Friend Rumford, we will take issue with you on the dollar queen question. Would not a man who deals in cheap goods be more liable to cheat you, or say, be more careless in filling your order than he who sells you first-class goods, and who has reputation at stake. He who sells untested queens has no reputation at stake, because he does not warrant his queens, hence he is liable to send you one that he knows to be, or has every reason to believe is indifferent. So far as we are concerned, we would rather pay \$3, or even \$5 for a tested queen, to a reliable party, than even 50 cents for something that we would have to take chances on, as we might have to buy many before we would get a good one. Much depends, however, on the party of whom you buy queens. Sometimes the same queen's progeny will be found to have a little variation in their marking. While very many of them are well marked, others are not so well. The only cause that we can assign for this is, that during the hatching process some receive more heat than others. Those that are reared on the outer edge of the combs are darker than those reared in the middle of the hive, from the fact that they do not receive the same amount of heat; the less heat, the darker the bee. We see no reason why bees should not differ in color, as well as other stock. The cause, however, may be different. We have yet to see the first colony where all the bees were marked exactly alike.—Ed.]

[For the APICULTURIST.]

KENTUCKY AS A HONEY-PRODUCING STATE

G. W. DEMAREE, CHRISTIANBURG, KY.

I HAVE long been of the opinion that Kentucky—taking everything into consideration—has no superior as a honey-producing State. I have admired the wonderful yields reported from California, Florida, Texas, and other parts of our wonderfully varied country, but these wonderful outpourings of the precious nectar are spasmodic in character. There are too many "off years" to discourage the honey-producing enterprise. I have no doubt, however, that this difficulty will be in a measure overcome by and by. Beekeepers are fast learning to scatter the seeds of such honey plants as will give the best results, thus closing up the gaps where failure comes in. This done, California will doubtless be the leading honey-producing region. I have had something to do with bees in Kentucky for over 30 years—in fact, since a small boy—and I have seen but two years in the time that could be called "bad honey years;" the present is one of them. The present season as a honey season has been a wonder to observing apiarists. There has been an abundance of bloom of almost every description, but the unfavorable weather has prevented the secretion of nectar, except some thin inferior stuff, just sufficient to induce excessive breeding. If you open a hive in my apiary to-day, August 15, you will find the combs full of brood, like as if it was spring of the year, and little or no sealed honey in the hive. Our dependence now for winter stores is on fall bloom; if this fails we will have to feed at a fearful expense. My bees swarmed this season, in season and out of season. I have returned most of the swarms, as I had no faith in their being self-supporting. I had a swarm to-day, 15th August. Doubtless California apiarists—in fact, all apiarists—will be interested in a descriptive list of the honey-producing flora of Kentucky. Kentucky, like other parts of the earth, has its good and its poor locations. In a good location the spring campaign opens with the willows and elms, soft and hard maples. Fruit trees and shrubs follow suit

with their liberal contributions; then comes a little gap, say ten days; then the black locust and poplar (tulip) follows—say 10th of May. The black locust is inferior only to white clover here. It is not an uncommon thing for the bees—commencing with hives empty of stores—to crowd out the queen in four or five days when the locust is in bloom. White clover succeeds the locust, and from it we get our surplus of superior white honey. As a supplement to white clover we have catnip, hoarhound, figwort, motherwort, *milkwort, *polygala vulgaris*, milk weed, cotton thistle, teasel, mullein, hyssop, buck bush, or coral berry, wild larkspur, the "devil's shoestring," iron weed and all the garden and field vines, cucumbers, squashes, melons, pumpkins, etc. These are some of our summer blooming plants. For fall forage we name the golden rods, smart weed, or heartsease, wild sunflower, wild buckwheat, and asters without end. The "last rose of summer" is an aster that produces nectar at a rapid rate.

[For the APICULTURIST.]

THE ITALIAN CONTROVERSY AGAIN.

BEEES THAT COVER AND STICK TO THEIR COMBS ARE GOOD MOTH EXTERMINATORS.

I. B. RUMFORD, BAKERSFIELD.

I AM sorry you could not make room for my friend Enas, as I like to kill two birds at one shot, if possible, but will divide the load this time.

So friend G. thinks I am cheeky. Probably that is true, as I try to live so as not to be ashamed to show both cheeks to every man, and ask no one to do what I am not ready to perform myself under the same circumstances. What is the use of friend G. advising me for some time back to get Italians, or trying them as a remedy for the moth worm, if, as soon as I put in evidence in favor of the black bees, he is going to fly around and claim the fault is *always* with the bee-keeper? I never leave any swarm go over a week, if so long, without eggs to raise a queen from. Every week during the summer I examine and see that there

*I give the scientific name of this plant because I have never seen it classed as a honey-producing plant. It deserves to be better known.

are eggs in every hive. It was not queenless hives that were troubled, nor do I let them swarm any more than possible, as we destroy all extra queen cells once each week. We are running the same apiary this year, increased to 200 colonies, without any trouble with the worms, even if we do not deserve the name of "bee-keeper"—*bee owner* will do; we are not ambitious, so the honey comes plenty. The latter part of friend G's article is good, and such advice much better than saying get Italian queens.

Now, for the benefit of my friends, etc., let me tell what I find to be the best way to keep out the moth worm: By observation you will notice that on taking up a frame in one hive that all the bees will fall or shake off or run down and hang to a corner, whilst the bees of another swarm will stick close to the comb and spread themselves all over it, and you can hardly shake them off. This last swarm will never be troubled with worms, while the former will be destroyed. The secret of my success this year is due in a great measure to the fact of requeening my apiary from a swarm that had that peculiarity, while the year before I had taken pains to breed from bees that fell or shook readily from the comb, thinking it so much handier in extracting. The bees I have now have to be taken off with a good wet wing, and the mother of the queens descended from a \$1 Cyprian, but she could not be bought from me for \$10, as her bees not only keep the comb covered all the time you have it out, so that it is hard to look for eggs, but they bring more honey than any others. So my rule for bee-keeping is strong swarms of such bees as cling close and cover the comb all the time, as well as fill it full of honey, no matter if they be Black, Italian, Cyprian, or Hybrid, and my idea of a bee man is one who is able to make the business profitable when others fail.

Yours for light, even if it takes cheek to get it.

THE postoffice address of W. W. Bliss is changed from Los Angeles to Durate, Los Angeles County, Cal. Mr. Bliss is now active in collecting apicultural statistics, that will soon appear in the APICULTURIST, and they will be found of great interest.

[For the APICULTURIST.]

LAS FLORES CAMP.

C. M. DRAKE, SANTA PAULA.

CHAPTER VI.

HONEY.

EXTRACTING honey is the hardest work about a bee camp, and yet it is very pleasant work to take the combs, loaded with gathered sweetness, and hear the musical rattling of the drops of honey, as they are thrown against the sides of the extractor, and to watch, with a comfortable feeling of growing wealth, the honey slowly rising in the honey tanks below.

The two B. Masters began to extract fully two weeks before their neighbors, partly to keep down the swarming fever, and partly to partake of the advantage of the stimulation which extracting seems to produce. Though the amount taken from each hive was small, averaging only about ten pounds, the sum total was a little over a ton of honey, somewhat dark in color, as all of the first extractings are, but of agreeable flavor and fair body.

Then came two weeks of dry scorching winds, blasting the bloom and the hopes of the bee-keepers, and drying up the growing crops as well, so that farmers and bee-men went around with gloomy faces and dubious shakings of the head. The bees forsook the lower valleys, and sought the cool canyons of the mountains. Fortunately, the sage and the buck brush blooms were not far enough advanced to be seriously hurt by the unwelcome east wind, and as the fogs began to roll up from the ocean, the plants began to lift up their drooping heads, and the boys began to hope for more honey. Weak swarms were doubled up, and soon everything was ready for another extracting.

About the middle of June the boys took out another ton of very nice honey of a light amber color, and by the tenth of July the supers of the strongest colonies were again full, and there was at least a ton and a half of white sage honey in the caps.

"The bee-keepers all advise us not to extract again," said Ben; "but this honey is too nice to let

the bees have, and I believe they will fill up again, too."

"I think it will pay us to extract this honey, if we have to feed back some of the dark we took out at first," returned Bob.

"Isn't it strange how much better the sages and other plants seem to look about this camp than in almost any other place?" continued Bob. "But then, our rain gauge said we had more rain here, and the most of this canyon is sheltered from the east wind, and so the feed is not dried up, as in other places."

"We will lay our honey crop to our bee-keeping," asserted Ben. "What is the use of being modest, and saying it is location, when we know how well our apiary was managed. If we don't blow our own horns, they will never make a noise in the world."

"There was a good deal in having our colonies ready for the harvest," said Bob; "and I think we made it by putting the whole strength of the apiary into about half of the hives, giving them bees and brood from the other hives, and keeping them running over with bees."

"It is the surplus bees that put in the surplus honey," said Ben; "and though we can't make the honey come in the flowers, we can have our bees ready to gather it when it does come in the flowers."

"And we gained by extracting the honey before it was ripe and capped over," added Bob. "It was well that we had our evaporating troughs and tanks. They certainly add to the quantity of honey, if not to the quality, and people have not yet learned to pay for quality, though they will pay for color. I think it paid us having two extractors, so we could keep cards of dark honey separate from our lighter honey, for a little dark colors a deal of light honey."

The boys kept an account of the gain of each day by three colonies, which could be easily raised on a home-made balance stick, so that they could tell what kind of days were most favorable to a honey flow. Cool, moist nights, followed by warm, sunny days, with little wind, seemed to be best to make the plants secrete honey, though at times there would be a flow which could only be explained by the ripeness (so to speak) of the bloom. They examined the honey produced by the various kinds of blossoms,

and ascertained the color of the honey, the approximate amount, etc., produced by each kind.

They made a collection of the various honey plants and took them to a botanist to be named, and then arranged them in alphabetical order, noting under each name the time of bloom, amount and quality of the honey and other interesting facts about the plant, its habits, etc. The scent of the flowers, especially in the early morning, was found to be like the flavor of the honey produced by them. The honey about the Las Flores camp was strongly flavored with different species of mint, and along through the season it was curious to observe how different colonies would work in a certain direction, or upon one kind of bloom, to the almost entire disregard of other flowers. A field of white sage, which had been burned over two years before and had grown up the previous year in strong, healthy stalks, was a favorite resort of the bees, and one part of the burnt area, which had been "sheeped off" in the month of March, was noticeable for its barrenness of bloom and honey.

Sheep are greater drawbacks to bee-keepers than all the rest of the domestic animals. Cattle do not seem to injure the bee feed so much, but a big band of sheep is almost as bad as the foul brood, especially in a dry season when pasturage is scant.

The boys also observed that some flowers would produce several flows of honey, while other kinds would produce honey but once.

The tongues of the bees were not long enough to get all the honey from the white sage, especially, and it was curious to see the bees visiting blossoms apparently dead, to gather the honey which still remained in the blossom, but which had, perhaps, been heretofore beyond their reach.

The boys noticed that the bloom looked much healthier on the north side of the hills, or in deep canyons, where the sun and wind were not so strong, though in other years this was not the case.

In former years the seed of the Simpson honey-plant had been scattered along the banks of the creek, and these plants produced an astonishing amount of honey. These plants are quite plentiful in Santa Barbara county, but there are not

many of them found in Ventura county, except near the Santa Barbara line.

The boys floured some of the bees and timed their voyages, finding a great difference between the lengths of time bees took for their voyages at different times of the day. The time occupied in their flight was thus shown to be small compared with the time it took to gather the honey, and the time it took to unload seemed to be later in the day. Not only did the boys preserve sample bottles of the honey at each extracting, but they took pains to take out a sample bottle each week, putting a label on the bottle with the date and the probable sources of the honey.

Such things are useful as references, and not only add to the beekeepers' knowledge, but to his interest in his labors.

The honey of different seasons can thus be compared, and if the bottles are sealed to prevent evaporation, the comparative thickness of the honey can be tested by taking care to have the same sized bottles and enclosing the same sized air bubble in each bottle. They should be kept in the dark, as the light alters the color somewhat.

It would also be instructive for bee-men living in different parts of the State, or of the United States, to exchange honey samples.

(To be continued.)

THE FUTURE OF OUR INDUSTRY.

J. H. BOOK, LOS ANGELES.

I HAVE carefully examined each number of your journal, from the first, and am pleased to note with what care and ability the articles on various topics are written by your correspondents, who are generally practical apiarians. The fact reflects very great credit upon the intelligence of the gentlemen, as a class, thus occupied in the production of honey. I make these observations, not as complimentary to the literary attainments of said apiculturists interested in the success of your journal, but rather hoping to stimulate, to a small degree at least, their vigorous discussions of subjects calculated to promote and elevate the honey industries of our State, which is destined to play a prominent part in the honey markets of both continents.

(For the APICULTURIST.)

COLOR OF HONEY.

R. B. ROBBINS, BLOOMDALE, O.

THIS subject, or coloring in honey, has been attracting considerable attention for some time past, and some have proposed offering a reward to any person who can devise some practical method of extracting the same without any injury or damage to the honey. That much of the honey offered in market sells slow and at a very low price is true, and usually the cause is its dark appearance, while white or clear honey finds a much readier sale and higher price, notwithstanding the grade and quality may not be any better, and oftentimes not so good. This coloring that is so often found in honey is supposed by many to be due to the source from which the honey is obtained by the bees. This, however, is a mistake to a great degree; for in all latitudes where there is winter weather, cold and freezing, you will find that all spring and early summer honey will be white, the source being immaterial. Dark honey will not be found until summer heat and moisture has liberated certain chemical properties contained in decomposing vegetation, these properties escape into the air and become united by contact with the liquid nectar contained there, after which it is secreted by flowers or growing vegetation. It is a well known fact, that in all the great array of flowers that secrete nectar, but very few affect the color, while the flavor and odor can be traced direct to the source from which it was obtained.

July 2d, 1882.

(For the APICULTURIST.)

CALIFORNIA HONEY IN OREGON.

E. S. BROOKS.

I AM glad to note that the apiculturists of California are waking up to their own interests, especially as to the honey market. Much of your honey comes to us neatly put up, and labeled "Pure Los Angeles Honey," "Pure Orange Blossom Honey," etc., but when sampled proves to be of an inferior quality, usually termed by us glucose honey. This so-called California Honey has injured the market in this State materially.

No. 1 California comb honey retails here at 25 cents per lb., so it is easily seen "who gets the profits."

[We have noticed for years past that the above labels are gotten up by some of the fruit and pickle factories of San Francisco, and the sources from which the honey is gathered are totally unknown to the canners; they would as soon call it "Pure Skunk Cabbage Honey" as "Orange Blossom," if they thought it would be to their interests. California honey comes from the mountains, as a general thing, and not from the orange groves,—Ed.]

[For the APICULTURIST.]

AN EXPERIMENT.

THE AMOUNT OF HONEY REQUIRED TO WINTER A COLONY ON.

W. W. BLISS, LOS ANGELES.

LAST year the bees, as a general thing, did not do very well in this county, but in some localities they did better than in others. One thing I could never fully understand, and that is why bees in one apiary will do well, while in another, not one-half mile distant, they will do nothing at all, unless it is the fault of the bee-keeper, and I think it is in part if not wholly.

On the 29th of last March I placed one of my average swarms on a pair of scales and weighed them each evening after the bees were in the hive, and continued to do so until the 1st of September.

On the 29th of March they weighed 65 pounds; their greatest gain in one day was 2 pounds, on the 7th of May and the 6th of July; their greatest loss in one day was 1 pound, the lowest weight reached was 64¼ pounds, ¾ of a pound less than they weighed on the start; the highest weight was 90 pounds, on the 30th and 31st of July, and the 1st of August. From that date they gradually lost, until they weighed only 80 pounds on the 1st of September, when I stopped weighing them, as the honey season was over. They weigh to-day 63 pounds, a loss of only 17 pounds in 7 months, which does not look much like the 35 or 40 pounds that they talk of leaving in the hive to winter bees on in the East.

[For the APICULTURIST.]

ADULTERATION.

FRANK BARTON, LOS ANGELES.

THROUGHOUT the length and breadth of this great nation,

North, south, east, west, from "Frisco" to the "Hub,"

'Tis cursed by drink and food adulteration, Its people slowly die of "doctored" grub.

Beans in the coffee, hog fat in the butter, Sand in the sugar, watered kerosene—

'Tis cause enough to make a dumb man stutter

With wrath, to see what gaudy labels screen.

The infant now, who, through its nursing hours,

Its bottle filled with milk and water hugs,

Knows not the strength, the health awaking powers,

Of he who chews his ma's lacteal dugs.

Boots, boiled with defunct felines, sell for "syrups,"

Beefsteaks of rubber "stand the boarders off;"

And when ye "bum" for uncurved whisky chirrups,

Mark how the peppered "benzine" starts his cough.

To imitate Dame Nature now they're trying,

And really I've seen their skill displayed In such perfection, that I, without lying,

May say they've quite placed nature in the shade

It was a beehive, fair was its exterior, And when I peeped seemed doubly good within;

I paid the price and got a "hive superior," So said the "apiarist," with a grin.

Home reached, and supper placed upon the table,

I hastened to enjoy my costly prize; But hold—to do it justice I'm not able—

I'll say 'twas glucose, so you can surmise. False comb, false honey, false representation,

No wonder that I then and there did curse

All kinds and ways of food adulteration, Than which no form of thieving can be worse.

O let us gain, my friends, but honest money,

Let our vocation merit not such blame; Then shall pure Truth, as golden bees store honey,

Bring to us wealth and honorable name.

[For the APICULTURIST.]

FOUL BROOD, HOLY LAND, CYPRIAN AND ITALIAN BEES IN OREGON.

GUS. MURHARD, PORTLAND, OR.

I AM practically a self-made bee-man, who has handled bees now over 20 years, and has made many experiments. I possess at present about 160 swarms of Holy Land, Cyprian and Italian bees—mostly Holy Land, to whom I give decidedly the preference after this season's experience.

I have had a good deal to do with that dreadful bee disease, foul brood, and as I have noticed in your July number an article by Mr. W. W. Bliss on that subject, wherein Mr. Bliss ascribed the origin of the disease in a healthy hive that has not been afflicted in any way by some diseased hive, to damaged pollen, I wish to say here that, notwithstanding Mr. Bliss' damaged pollen as one cause, that there are most probably also other causes that can originate the disease in a healthy hive of bees. The great German apiarist, Dr. Dzierson, of Silesia, Prussia, does in his writings, if I recollect correctly, ascribe the cause of the origin of the disease to the bees themselves, in two ways.

Firstly: In after swarms, who fast building new combs before the young queen begins laying, in their overanxiety to rear brood, will permit drone laying workers among them to lay their eggs scattered here and there all over the combs; but as soon as the young queen begins laying, they will neglect this illegitimate offspring. Now, if this neglected, scattered, illegitimate brood happened to be larvæ at the time of neglect or desertion, as you may call it, the result is putrid wet rot; if it is at the more advanced state of a drone, it is dry rot. The latter can be removed by the workers, the former cannot.

Secondly: It can be produced by the bees of a swarm that has thrown off a very large first swarm, and has all combs well filled with brood, where the colony has become very much depopulated, and very bad and chilly weather sets in at the same time, when the workers are not able to protect all the brood against the inclemency of the weather, and are forced to neglect the brood on the outside combs to save that on the middle combs.

I have found Dr. Dzierson's statements both on several occasions perfectly correct.

In the first case of the appearance of the first signs of the disease in afterswarms, I did condemn both colonies, with their rather costly hives (my large Oregon Chest Hive), at once. Those two cases happened in two different apiaries at once, where there existed no foul brood, near by nor at a distance.

The latter case I found but among black stocks that will draw large swarms, and never in an

Italian. In the latter case, or more correctly speaking, in the case of dry rot, I cut out but the affected portion of a comb.

By my this year's experience with the Holy Land and Cyprian bees, I do not think that either one of these two varieties of superior bees would be liable to contract the disease by the first cause, and the Cyprians, who have thrown large first swarms like the blacks, but to the second cause.

If you think my remarks here worth while giving an insertion, you are welcome to this, my bee experience, which but corroborates Dr. Dzierson's statement.

I also would suggest the idea, that if damaged pollen can originate the disease in a healthy hive, damaged or poisonous honey (the latter made by the bees from such poisonous plants as the lobelia) might have the same effect, and should be investigated by bee-keepers in a locality where such plants grow. If the honey of the lobelia can have the effect of the poison on any person that eats such honey, as in fact the honey made of the lobelia does, that honey may also have a poisonous effect on the larvae that are raised in cells that have been emptied of such honey.

July 20, 1882.

[For the APICULTURIST.]

AN EASTERN HONEY DEALER'S VIEWS

ON THE PAST, PRESENT AND FUTURE OF BEE-KEEPING IN CALIFORNIA.

J. M. M'CAUL, NEW YORK CITY.

THE outlook for the honey crop of 1882 is but little better than that of 1881.

After returning from the golden state, and placing California's crop of honey in 1878 at 720,000 pounds, about a quarter of a crop may be looked for there this season, some 180,000 pounds, this amount about 90 tons, according to the best available reports, will constitute the excess of honey produced in 1882 over that in the previous year. New York State, a leading honey producing center, will run short of its general good average, but this deficiency will be offset by gains in Illinois, Michigan, and other Western States, which produced less than usual in 1881. California promises

a quarter crop this year, against a total failure in 1881. The heavy honey year in California was in 1878, the crop has not equaled the output of the bee since that date. Taking up of alternate sections of land for grazing and allowing sheep to range across the intermediate plots, tend to destroy the blossoms on which the industrious bee has depended. A fire swept across a county or two in Southern California two years ago, and all verdure was destroyed, which discouraged the bee-keepers as well as the bees. Although by next season the present prospect is that honey blossoms will be fairly plenty once more. This explains the failure of the honey crop in that State last year. But the probability of recurrences of fires, together with the grazing trouble, point to the steady reduction of the honey product in California from now on, unless measures are taken to cultivate bee food in the canyons and elsewhere, which plan is meeting with serious consideration with California bee-keepers.

[See editorial note elsewhere, and also the article by J. G. Corey.—Ed.]

[For the APICULTURIST.]

BEE-KEEPING IN OREGON.

A SURE THING.

W. H. HADLEY, DAYTON, O.

I AM well pleased with your journal. I like the tone of the editorials, and the correspondents seem to understand what they are writing about, and are full masters of apiculture. The instructions are practical, such as a beginner needs. Most of our eastern bee journals contain many good ideas, but a large per cent. of the articles are of but little interest to a Pacific Coast bee-keeper. I have been wishing for the last three years that a journal would start up on this coast. And now success to it.

Oregon has had the reputation of not being a good honey producing country; but that is not true of this part of the Willamette Valley. Neither is it true of the foothills of the Coast and Cascade Mountains.

I have never had a failure in the six years I have kept bees here, but have always had an average crop. Our honey crop is like our grain

and fruit crop—it never fails. We never have such large yields as you have sometimes in California, but we have a *sure* thing. This year so far has been better than an average; there has been a continuous flow of honey since April, and the prospect is good for four weeks yet.

The bees are all black here; I know of no Italians in the county. So you will say we are away back in the middle ages of bee culture. I have been debating whether it would pay me to go to the expense of Italianizing 50 swarms or not, as I never possessed an Italian.

July 24, 1882.

[Friend Hadley, it will pay you to Italianize. Were we starting again, and had the experience we now have, we would rather start with one colony of Italians than two of blacks, as we would come out at the end of the season with more bees and more honey.—Ed.]

BUMBLE BEES are wanted in New Zealand to fertilize clover bloom, in order that clover seed may be produced. The bumble bee, as well as the honey bee, is an important auxiliary in nature.

DRONES VS. BACHELORS.—It is said by some naturalists that drone bees are a slandered race, that they are not idlers, but nurse and take care of the baby bees. Can as much be said of old bachelors?

THE honey season for 1882 is now closed, and we score another failure; and from all reports we regard it as general. Dr. L. L. Langstroth, in a letter to the editor of the *American Bee Journal*, under date of July 26, 1882, says: "In the 45 years since I began to keep bees I have never known so poor a season for honey."

HIGHLY COMPLIMENTARY.—G. W. Demeree, of Christianburg, Ky., who is one of the ablest of America's intelligent apiarists, has this to say of this journal:

I have been favored with several sample copies of the APICULTURIST, and am pleased to say that it presents a pleasing and creditable appearance. I am glad to see that it is carefully and ably edited, as I cannot say that much of a majority of monthlies devoted to bee culture. California needs such a paper, and I wish it all success.

The California Apiculturist

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Editorial.

THE APIARY FOR SEPTEMBER.

THE working season for 1882, in southern California, is virtually closed, leaving, as all apiarists know, a meager result, and for many naught but blasted hopes. But little can be done now until the approach of the coming season. Colonies that are weak should be looked after; those that are not self-sustaining should be united with those that are, for there is not only union in strength, but strength in union.

We are frequently asked, "Will it pay to feed?" We say no, not in this climate, only on the near approach of the early bloom. Bees will soon consume more than their value when they fly out every day and gather no honey, for every time they return to the hive they fill themselves. Every colony should be examined every two weeks, and their wants supplied. As the season has been a failure, many apiarists will neglect their bees, and say, "Go thy way, a better season I will call for thee." The little pets have been faithful to their trust as far as they were able; the fault has not been theirs; consequently they are deserving of more attention and care. "Keep your business, and it will keep you." This is a sparkling truth, and has proven so with all apiarists this season who gave their bees proper attention. They have made honey enough to pay them well for their time employed, and good interest on the capital invested.

Queens will now curtail their labors, and brood rearing will be greatly diminished, as she regulates her laying in proportion to the amount of honey that is brought in. In the vicinity of alfalfa, or other honey producing plants, the storing of honey will continue, and bees will not require so strict attention.

Every apiarist should grow alfalfa or other late feed; then they would always have strong colonies—the key to success in apiculture.

IS THE ADULTERATION OF FOOD A MURDER?

IS he who steals your money by pennies or dimes, daily, a thief? If so, he who robs you of your health by degrees, and eventually of your life, is a murderer, not such in the eyes of statute law, but morally he pollutes the land with blood as much as he who shoots his neighbor down without cause or provocation; even more guilty, for he does not only tamper with the life of one, but with thousands. We do not make this broad assertion upon our own authority, but upon the authority of one of the most eminent and skillful physicians of the world, who says that dyspepsia, Bright's disease, and many other diseases that the human family is afflicted with, have their origin in adulterated food, and especially those articles adulterated with glucose. The *Boston Journal of Chemistry* thus speaks of the use of glucose:

"The millions of pounds of glucose manufactured in the Western States every month, is used mostly as an adulteration in the manufacture of table syrups, and in adulterating the dark, moist sugar used largely by the poor. Its next use is in the manufacture of candies. All soft candies, waxes, caramels, taffies, chocolates, etc., are made of glucose. Children are, therefore, large consumers of this substance. The honey bees are also fond of it, and will carry it away by the ton if it is placed within their reach. The honey made from it is no better than the pure glucose, as it is stowed away in the cell without change. * * This fictitious 'honey' is warranted true white clover honey from Vermont."

In many children the seeds of disease are implanted in their system, labefaction follows, and a premature grave is the final result.

The hydra-headed monster intemperance is annually sweeping count-

less thousands, with his fiery form, from the stage of action, which is much to be deplored. Some States have, by legal power, strangled the monster within their borders. No one will deny their right to protect the lives and the health of their citizens against the attacks of the invideoous monster intemperance. If, then, they have a right to protect life from unhealthful drinks, will not the same right extend to unhealthful food, which, like a canker worm, is slowly but steadily eating at the vitals of almost every one. Adulteration is a growing evil, and is becoming constantly more pernicious and dangerous; and so long as the love of gain waxes in the hearts of unprincipled men, so much greater will be the curse of adulteration.

Then let us demand by petition of our State, or perhaps more properly, of the general government, a law to protect our lives and health from the evils of adulterated food.

But some of legal lore tell us that the general government has not that right. We answer, that if it has the right to protect our property, it has the right to protect our lives and our health. We are glad to see that many of our statesmen are taking this view, and have already given expression to their views in Congress. The people have only to trouble the waters, and there will be an uprising against the monster and a glorious victory achieved.

DISTRICT FAIR AT LOS ANGELES.

The third annual fair of the District Agricultural Association, Sixth District, will be held in Los Angeles, October 16th to 21st, inclusive. The annexed list of premiums are offered in the apicultural department, a number of which are offered as special premiums, through the society, by some of our most liberal and enterprising business firms. We hope every apiarist will show his high appreciation of this work

of liberality by an effort to secure them. They are not confined to Los Angeles County, but are open to all in the State. Although the honey crop has been discouraging, there has been enough to make an attractive and interesting display.

Let an effort be made to eclipse any previous exhibit made in Los Angeles County. Let there be an exhibit of everything in the line of apiculture—premium or no premium. We want to see a spirit of enthusiasm manifested in this department that will not be excelled by any other department in the fair.

Messrs. Hatch & Barkley, commission men, No. 10 California street, San Francisco, come to the front with the following liberal premiums:

Best botanical display, including honey-producing plants, \$10.

Best Italian, Holy Land, or Cyprian queen bee, \$5.

Best ten-pounds comb honey, \$5.

Best display of honey, \$5.

By Burch & Boal, 71 Spring street, opposite Postoffice, Los Angeles:

Best ten pounds extracted honey, \$5.

By Merrill & Babcock, No. 27 Spring street, opposite Court House, Los Angeles:

Best honey preserved fruits, choice of the three following articles: One No. 2½ Fairy Queen oil stove, one set of Mrs. Potter's smoothing irons (nickle plated), or set (6) best silver plated ware.

By Harper, Reynolds & Co., 108 and 110 Main street, Los Angeles:

Best made hive, Bingham's bee smoker.

Second best queen bee, Bingham's honey knife.

By Apicultural Publishing Company, Oakland, Cal.:

Best ten pounds bee's wax, one year's subscription to THE CALIFORNIA APICULTURIST.

By District Agricultural Association:

Best honey cake, \$5.

Best exhibit of fruits preserved with honey, \$5.

Best bee gloves, \$1.50.

Best vinegar made of honey, \$1.

Best exhibit of apicultural implements, diploma.

Best honey cans, from 2 pounds to 60 pounds, diploma.

Best comb foundation machine, diploma.

Best comb foundation, diploma.

Neatest and most appropriate honey label, diploma.

By Los Angeles Bee-Keeper's Association:

Best colony of Italian, Holy Land, or Cyprian bees, \$5.

Second best, silver cup.

NOTICE TO EXHIBITORS.

All persons desirous of exhibiting in the Apicultural Department at Third Annual District Agricultural Fair, in October, at Los Angeles, Cal., will please address N. Levering, Los Angeles, Cal., box 1,088, relative to space for articles to be exhibited, or any information in respect to that department.

Any articles designed for exhibition in that department, if sent by express or otherwise, and addressed to N. Levering, as Superintendent of this department, will receive careful attention and will be properly placed on exhibition, and at the close of the fair disposed of as may be directed by the owner.

THE FIRST DISTRICT, OR THE GOLDEN GATE FAIR.

THIS fair was held at the Trotting Park, near Oakland, early this month. The principle attraction was the speed programme, which the managers managed to make the most complete in the State; so much so that other departments were almost left out in the cold. We were surprised, when we visited the grounds, to find that the exhibit of agricultural machinery and implements was poor, and was in a tent. The live stock show was pretty good, but not so good as it should be.

It seems that those who would like to exhibit their wares and stock at this fair have a sort of dislike to the management of the association. A society like the Golden Gate Fair Association should have something more than a tent for exhibitors to

display their goods, etc., in. If more time and money was given to get up a first-class exhibit of the mechanical arts, and the various branches of agriculture, and less time and money spent in racing, the welfare of the State would be better subserved thereby.

It is about time that the men who manage such fairs were men of some practical experience in the mechanical and agricultural industries, and not doctors, merchants, Judges, lawyers, non-professional men, nor men of no profession or occupation at all.

The Act under which many of these associations exist was approved April 15, 1880, and may be found on page 238, statutes of 1880. One section, particularly, we wish to call the attention of bee-keepers to, to wit: section 14, which reads: "Within ten days after the formation of an agricultural association within any of the districts above constituted, in accordance with the provisions of this act, and notice of such formation to the Governor, the Governor shall appoint resident citizens of such district as members of a District Board of Agriculture for said district, whose term of office shall be four years, except as hereinafter provided."

Section 16 fixes it so that two members shall go out of office each year.

Well, so much. Now, the Governor should appoint not lawyers, nor Judges, nor professional men, nor men of no profession or occupation whatever; but artisans, farmers, stock breeders, horticulturists, apiculturists, viticulturists, floriculturists, etc. These are the men who should be on such Boards of Directors, and we advise bee-keepers to see that one of their number be recommended to the Governor for appointment when the next vacancy occurs in their district.

The Act should be amended so that it will be obligatory upon the Governor to appoint persons representing the above callings. Who will help us in the matter.

Editor's Portfolio.

THE NATIONAL CONVENTION.

The thirteenth annual meeting of the North American Bee-Keepers' Society will convene October 3d, and continue three days, at Washington Park Hall, Cincinnati, Ohio. Prof. Cook sends us the following:

The meeting promises to be a grand success. Such men as D. A. Jones, A. I. Root, James Heddon, O. O. Poppleton and Dr. J. P. H. Brown, have already promised attendance.

It is expected that the Association will visit in a body the apiary of Mr. Hill, of Mount Pleasant, which is one of the best conducted in the United States.

Mr. D. A. Jones will exhibit specimens of the bees of the Indies, including the famous *Apis Dorsata*.

There will also be exhibited at each intermission, microscopic preparations, showing the structure of the sting, mouth-parts, etc., and of the so-called dry fæces of bees.

Let some bee-keeper of each leading city look after railroad rates. It will be the last week of the great Cincinnati Exposition. This is a great attraction, and will make it easy to secure reduced rates.

A. J. Cook, President.

In connection with the above announcement, we find the following sensible editorial notice, taken from the *Bee-Keepers' Exchange*, is well timed, and we heartily approve of the sentiment therein contained:

The official announcement of the meeting of the North American Bee-Keepers' Association, by the Secretary, Mr. Parmly, will be found on another page of this number. He says he hopes this will be a profitable meeting. So say we, all of us. Don't pattern by some of the latter meetings, but turn over a new leaf, brethren, and confine yourselves to the business that brought you together, viz.: "To promote the Science of Apiculture as a National Society, and not the lionizing of individuals, whose self-interest pushes them to the front." We trust there will be a large gathering and a profitable meeting will be had.

And we trust that as California has never had a representative at the Convention, she will have such at the coming one.

TALKING BUSINESS TO HONEY DEALERS.

In another column we give a letter sent us by the manager of the honey department of the Messrs. Thurber & Co.'s establishment in New York City. It seems strange to us that this firm should send communications, when they

are alike, word for word, to the different bee journals. We have refused one from this firm already, because we found it already published in another journal, and we would have done so with the one we now give if we knew it was to appear elsewhere. Since we had it set up we find it in the *B. K. Exchange*. The editorial columns of that journal have these comments on the article in question, under the caption "The Honey Crop as Viewed by a Honey Dealer:"

Mr. McC. has just returned from a trip to California, and we presume he knows what he is talking about; but, as we understand, Messrs. T. & Co. are going to buy honey, instead of handling it on commission. There may be some object in having us believe the crop to be more than it really is, in order to bear down the prices.

We know that *self interest* takes the lead among the principles of our business men, ourselves included, and therefore we should act accordingly, keeping this fact before us.

We are not as wise, as a class, as we ought to be, especially on this point of marketing our honey. We hold conventions and talk a good deal, and what does it amount to, nothing as far as our honey is concerned. In the first place it is generally the wrong time of year when we meet, we should certainly get together very soon after our honey crop is secured, report the amount obtained, and the quality, and council together and determine the prices to be asked. We would then be prepared when the buyers for the honey dealers come around, to talk business to them intelligently, as we would be posted as well as they.

Before we close, we would wish to impress upon our correspondents that we do not want any communications sent us as original matter that they intend to have published in another bee journal simultaneously with ours. Such action is not fair.

THIS NUMBER.—We feel justified in saying that this issue of this journal is second to none of its kind published in the world, and we ask for it from the many persons to whom it will be sent as a sample copy, a careful reading, and if found to be what we claim for it, then read our offer, or inducement, on another page and subscribe for it.

DISTRICT CONVENTION MEETING. The Bee-Keepers' District Convention of Southern California will meet in Los Angeles during the week of the fair of the Sixth District Association, in October. We hope to see a large attendance.

A. F. MOON.

With feelings of deep regret we learn that our subscriber and correspondent, Mr. A. F. Moon, departed this life at his home in Rome, Ga., on the morning of August 2, 1882. In the 58th year of his age h^{as} this pioneer bee-keeper left this vale of tears, and crossed over to that valley where perpetual sunshine and bloom gladdens the eternal spirit of man, and where, in all likelihood, the "blessed bee" lavishes upon him the sweetest of nectar gathered from the flowers of plants that were planted by the angels.

From the *American Bee Journal* we learn that for over a year he was suffering from an affliction of one of his limbs, which had to be amputated some time since. The first operation not being sufficient to restore him to health, it was, on the 1st of August, deemed necessary to remove the entire leg. The next day he was relieved of all further suffering.

Mr. Moon had kept bees for 37 years, and was at all times one of America's most progressive bee-keepers. He held prominent offices in both the "Michigan Bee-keepers' Association" and "N. A. B. K. Society," besides being among the first organizers of both societies.

Having moved to Georgia, he commenced in 1873 the publishing and editing of *Moon's Bee World*. His health failing, he sold it early in 1877 to the publishers of the *Bee-keepers' Magazine*; and we learn from that magazine of that year that its subscription list was filled out with that journal.

Perhaps the last article he ever wrote for the apicultural press was for this journal, and which may be found in our May number. He there pays our apiarists a high compliment, and admonishes them to stand by their journal, the APICULTURIST, and give it their support, so that the editor may be able, at the end of the year, to exclaim, like the great Alexander, "I came! I saw! I conquered!"

Truly, the prominent guiding stars of our galaxy of American apiculturists are falling from their places, and we hope that they, like a precious jewel that falls from an inferior setting, and that is replaced in a surrounding more in keeping with its own superiority, may be

taken to that paradise where toil and sorrow are never known. Thus has our fellow bee-keeper passed away, and let all say, with one voice and feeling, *requiescat in pace*.

DO SMOKERS NEED "SHIELDS?"

—They do when the fire barrel is fastened near the bellows; and when they are so fixed they are by many apiarists considered a nuisance, as they render them hard to take hold of, when one is in somewhat of a hurry to quiet a lot of angry bees. We notice that the majority of smokers are shieldless, and instead have the fire pot or barrel raised on standards, thus placing it several inches from the bellows, and the operator's fingers are perfectly secure from being burnt.

The latest, and to our liking the best smoker now on the market, is King's large 3x7 inch bellows. It is made of the best tin, good leather throughout, tinned and japanned tacks—in short, it is in many other respects a first-class smoker. We have tested it with the "Conqueror," and find that, as far as the length of time it will burn without relighting is concerned, and also as to the kind of materials that may be used in it, it is its equal; and both also give a strong draft, and furnish an abundance of smoke. To parties who are about to purchase a smoker, we would say, send to the makers of these two instruments for descriptions, etc., and compare the claims of each.

An Inducement.—It is customary with publishers, toward the close of the year, to offer new yearly subscribers, who subscribe before the end of the year, their paper for the balance of the year free. Not wishing to be classed with the non-progressive publishers, we too are going to offer all who subscribe before the first of December the balance of the year free. So all who send one dollar this month will have all the numbers for the year 1883, and this, and the October, November and December numbers, too—*sixteen months for one dollar. Subscribe now!*

THE APICULTURIST is receiving the endorsement of the most prominent apiarists of the world. Subscribe for it and see for yourselves. Only \$1 per year, in advance.

ACKNOWLEDGMENTS.—To J. D. Enas our Oakland office is indebted for a sample of his queen introducing cage, as described in the July issue; also for one of his feeders, for use either inside or outside of the hive. We have given both a fair trial, and find them admirably adapted for the purposes they are intended for. The latter we shall describe, and perhaps give a cut of in a subsequent issue.

Mr. M. Bray, of New Almaden, has enabled us to discuss a sweet subject, by sending us prepaid, per Wells, Fargo & Co's Express, a case of his choice honey in one pound sections, with nice planed sugarpine sides, instead of glass. It makes a very neat package, especially with those nice colored labels he had printed at this office, which cover the front, top and sides, so that when properly pasted, the label forms a hinge, so that the light wood covers may be raised to show the honey to customers, and closed again. Besides, it makes an easy package to carry.

Both gentlemen have our thanks for the above.

'EIGHTY-ONE, 'EIGHTY-TWO AND 'EIGHTY-THREE.—We give in this issue a letter from Mr. McCaul, who recently visited this coast, partly for recreation, and partly in the interests of the large importing and manufacturing grocery and produce establishment of H. K. & F. B. Thurber & Co., of New York City. Mr. McC. intimates that next year is going to be a good one for the apiarist. Indications are that it will, and we trust it will prove so.

* A CHANCE FOR ALL.—We want an active person in every town to go to work at once and get up a club for the APICULTURIST. To canvassers, male or female, who are willing to work for us, we will give a good cash commission. We hope to receive a hearty response to this appeal. Write to the Oakland office for terms.

GLUCOSE MEAL, when fed to milk cows, is very damaging to the cheese made from milk obtained from cows thus fed, causing it to rot down in about 30 days. If the meal is so damaging, what must the glucose itself be when taken into the human stomach?

In the Field.

THE HONEY SAGES OF CALIFORNIA.

J. C. NEVIN, LOS ANGELES.

THE plants which you have referred to me, Mr. Editor, and which are popularly known as "sage," are species of the genus *Audibertia*. They belong to the same order (*Labiatae*) as the true sage, and in common with it and many others of the family, possess aromatic properties which remind one very much of the sage itself. Besides this, the rugose-veiny leaves also lead the ordinary observer to recognize the likeness to the old household plant so universally used as a condiment. Indeed, the leaves of some of these California plants are employed by many persons for the same purposes as the common sage.

There are at least half a dozen species of *Audibertia* on the coast, included under the popular names of "white" and "black" sage. The "white" (*Audibertia Polystachya*) differs very much in the form of inflorescence from all the others, and from that of the genuine sage. Its whole appearance makes it a rather striking plant, and, when once known, to be easily recognized anywhere. Its range extends from Santa Barbara to San Diego. All lovers of the beautiful white honey gathered from its flowers, ought to know and regard it with feelings of gratitude.

"Ball," "Button," or "Black" Sage, is undoubtedly a common name for several distinct species. Their general habit is much the same, whilst ordinarily the specific distinctions may not be so obvious. The whole appearance is more nearly like the true sage than is the "white" above mentioned. Of the number, *A. Stachyoides*, *A. Palmeri* and *A. Clevelandi* are very closely allied and most difficult to distinguish. *A. Stachyoides* ranges from the Contra Costa Mountains southward, while *A. Palmeri* and *A. Clevelandi* are confined to the southern part of the State. Just what precise form prevails around Los Angeles has not as yet been definitely settled, but it is mostly near to, if not identical, with *A. Palmeri*, the typical form of which is found in San Diego county.

The peculiar manner of inflorescence in all Labiate plants, combining both the definite and indefinite from, renders them specially valuable to your industry, since they continue to produce flowers for a good length of time. The *Audibertias* are particularly valuable on account of sustained growth after most others have yielded to the inevitable drouth of our summers, and should receive attention from apiculturists. If there be any method by which they could be economically propagated, or protected even in their own efforts to maintain an existence, it would repay the effort.

Our Extractor.

[From the Bee-Keepers' Guide.]

THE EXTRACTOR AND EXTRACTED HONEY.

M. MAHIN.

I DO not write this article for the benefit of the leading apiarists of the country, who make the raising of bees and the production of honey their principal business. They need no instruction from me, but I might learn valuable lessons from them. I write for the benefit of that large class who, like myself, make bee-keeping a side issue, and by no means of it supplement their incomes. To all such I regard the extractor as exceedingly valuable. It is certainly, after the moveable frame hive, the greatest of all inventions for the promotion of apiculture and the production of honey.

Since 1871 I have used an extractor, and have run my bees almost exclusively for extracted honey, and I am prepared to judge of the comparative merits of the two plans. I am very sure that double the quantity of honey can be obtained by the use of the extractor. Bees will not build comb unless honey is coming in abundantly; and they will fill empty combs when they would not build an inch of comb, or even draw out and finish comb foundation. It is easy to get a supply of empty combs, and they will last for many years. I have combs that have been filled and emptied many times for ten years, and they are as good now as they were ten years

ago. I have no difficulty in keeping them over winter. I have a supply of empty hives, and when the combs have been emptied for the season, they are put away in the empty hives, closed against mice and millers, and are safe until wanted. The frames I use for the extractor are 6½x12 inches, outside measure. I cut drone comb from brood frames, and put these, and transfer worker comb from the surplus chamber to the brood chamber.

Drone comb is better for the extractor than worker comb. The only disadvantage in it is that the queen will sometimes go into the upper story and deposit more drone eggs than are profitable.

The value of extracted honey is a matter to be considered. Will the people buy it? It is true that those who have not been educated to use extracted honey prefer to have it in the comb; but it is also true that many who become accustomed to it decidedly prefer it. I have created a market for extracted honey in three towns, Newcastle, Logansport and Huntington; and it is a very easy thing to do.

People who think they prefer comb honey will take a little of the extracted, if they cannot get what they want, and very soon like it quite as well, especially as the price is a little less. Producing as high as 1,600 pounds per year, I am never able to supply the home demand, which grows with every season.

I find extracted honey more easily handled and taken care of than comb honey, and grocers prefer to handle it, when put up in Mason's self-sealing jars, or other similar packages. Small, cheap tin pails, with lids, are also convenient, especially for the winter trade when the honey is candied.

Extracted honey has been brought into disrepute by reason of its extensive adulteration. For this reason it is far better that, as far as possible, producers shall put up their honey in packages ready for the retail market. People will soon learn that the label of the producer is a guarantee of the purity of the product. Of course those who keep many hundreds of colonies, and produce car-loads of honey, must sell in bulk to middle men; but anyone producing not more than 2,000 or 3,000 pounds can find a home market at remunerative prices. But to

do this the honey must be of good quality and neatly and attractively put up. Very many, however, will prefer to take their own vessels to the home of the apiarist and have them filled.

I have no advice to give concerning the style and make of the extractors to be used, but I have a word to say concerning an uncapping knife. The best I have used, beyond comparison, is a mason's pointing trowel, ground to an edge all around, both sides beveled. I have not seen Bingham & Hetherington's knife; that may be better, but I doubt.

POOR POLICY TO WORK CLOSELY IN THE FALL.

OUR California bee-keepers complain of Eastern bee journals, and say that they contain too much about wintering; that there is no trouble about wintering here, etc. The great trouble here is, about carrying our bees through a dry summer. My impression is still strong, that they can be carried through every season here with perfect success, but not with the policy that some pursue. Bees should not be robbed here of all their stores in the fall, any more than in the East. Stocks that were left full of stores last July are now full of brood and bees, while stocks that were robbed of their stores late in the season are now comparatively doing nothing, while their near neighbors' bees are doing nicely. It requires good management here in California in order to be successful, as well as it requires skill and management in the East. True, bees will winter here successfully on a very small supply of honey; but in order to be successful, they must either be strongly stimulated, or they must have a large amount of stores to fall back on. They can gather pollen in some localities the entire year. A good two-story Langstroth or Simplicity hive, well filled with stores and bees, will be self-supporting, even in a California dry year, and they will yield their owner from 100 to 300 pounds of honey in a good season, and have their hive well stored with honey for the dry season, if it should come; and if it does not come, the surplus honey can easily be taken out in the spring. Do not rob your bees too closely, even in California. *E. Gallup, in Gleanings.*

[From the American Bee-Keeper.]

A MODEL EXTRACTING ROOM.

E. A. THOMAS.

THE bee-keeper who intends to run his apiary for extracted honey should fit up a room on purpose for extracting. I have always found that it pays to have everything convenient and all ready for business. There is no time to make preparations after the rush of the season has commenced, and few if any do it, so that the importance of giving attention to this matter during the dull season must impress itself upon the minds of all.

I propose to give below a description of an extracting room, which I think will be found very convenient, and which can be fitted up at slight expense.

If the room you wish to use for the purpose is unfinished, sheathe it up with clean white boards, making it as warm as possible. Near the center of the room place the extractor, which should be fastened to a stand of sufficient height to allow the honey to be drawn off without moving it; in short, it should be placed so that it will be firm and secure. At the right hand of the extractor, as you stand when running the machine, construct a bench or table so that the edge will come a little higher than the machine, over which it should project a little. Make a shallow tin pan the size of the bench or table, with sides two inches high perhaps. Divide this into two compartments by putting in a partition of wire cloth about a foot from the end furthest from the extractor, which will be at your right hand as you stand at the table. Make a tray one inch deep to fit into the right hand compartment, to receive the caps as they are removed from the combs. This should be made of tinned wire cloth so that the caps will drain, and the honey run into the pan below. Bend the wire cloth into box shape after cutting out the corners, and solder a strip of tin around the edge for a rim. The cappings will drain nearly dry in this sieve like tray, and can then be washed in a tub of water kept for the purpose, which in time will make good vinegar.

The end of the tin tray next the extractor should be a little lower, to allow the honey to drain off freely, and should terminate in a funnel-

shaped nose. Construct a frame over the left hand apartment of the pan, and cover it with tinned wire cloth four meshes to the inch; this is to lay the frames on for uncapping. The leaking honey will drip into the pan beneath, and run into the extractor can, so that there will be no sticking and cleaning up loose honey, as is the case when a board is used. At the opposite side of the table from where you stand, attach a small tin can as deep as the uncapping knife is long; this is to hold warm water for rinsing the knife when it becomes sticky with honey. Have a drawer in front in which to keep the knives when not in use, and such other implements as may be needed in extracting; these should include some transferring sticks, rubber bands or clasps, so that in case a comb is broken from the frame by accident, it may be fastened in again at once, without having to hunt for half an hour to find the necessary implements. A light rack in the form of a crane will be found very handy to swing the frames of honey from the door of the room up above and a little back of the table, so that you can sit down while uncapping and extracting. At the sides of the room construct frames on which to hang the combs when not in use. One of the rabbits can be nailed to the wall, and the other extended across the room parallel and at the right distance from it, properly supported by stays in the center. You can have as many tiers as your frame will admit of, allowing about two inches between the rows, so that any frame can be removed at any time without disturbing the rest.

Build a tank or large tub to receive the honey as it comes from the extractor, so that it may evaporate if not thoroughly ripened, before being packed for market. The room should be well ventilated, in order to make it as cool as possible while you are at work, as it is sometimes necessary to extract when the robbers will trouble, and it is impossible to have the windows open. When not at work in the room it should be kept closed and as warm as possible. If you have no car track in the apiary, a three-wheeled truck with a rack to hold the frames will be found very useful for wheeling in the combs of honey. It may be simply a light frame covered with cotton cloth, with a cloth division

board to follow up as fast as it is filled if the robbers trouble. The combs, when taken from the hive, should be marked with the number of the hive, and the number of the frame in the hive, so that they may be returned in the same order that they are taken out.

BEST PACKAGES FOR EXTRACTED HONEY.

Not only is it necessary to put up comb honey in the most attractive shape, but it is also equally important to put up extracted honey in the right size packages. I believe the time has gone by for shipping it in large casks. The commission men or wholesale merchants who receive honey in large packages, are obliged to repack it for their retail trade, which necessitates expense and trouble, and they will not do it unless they can get a good profit for their trouble. Now the producer can pack it all ready for the retail trade much cheaper than the wholesale dealer can, thus getting it handled by the latter for a much less percentage; and the dealers prefer to handle it when it is all ready for their trade, and will do so many times when they would not touch large packages. Therefore, I think that it is advisable for beekeepers to ship their honey in packages not to exceed 50 pounds; and, in my opinion, those of 10 and 15 pounds are preferable.

THE BEES.

REV. John Irving, Md., delivered a lecture in Kinning Park, Scotland, lately. A Scotch paper remarks as follows concerning it: "After describing the history of the bees and their workings very minutely, Mr. Irving said that of all the creatures we are in the habit of making pets of, he knew of none more interesting or whose acquaintance is better worth cultivating than the bee, and at the same time he knew of none which has received more ignorant treatment at the hand of man. After giving an interesting sketch of bees and their daily work, he described the use of a bar-frame hive, which he exhibited, also comb foundation, the honey extractor, and other appurtenances connected with apiculture. The lecture was illustrated by enlarged and colored microscopic views of bee anatomy."

"THE BEST BEE LAND IN THE WORLD."

LOOKING now over all the available pastures of the State, it appears that the business of beekeeping is still in its infancy. Even in the more enterprising of the southern counties, where so vigorous a beginning has been made, less than a tenth of their honey resources have as yet been developed; while in the Great Plain, the coast ranges, the Sierra Nevada, and the northern region above Mount Shasta, the business can hardly be said to exist at all. What the limits of its developments in the future may be, with the advantages of cheap transportation and the advantage of better methods in general, it is not easy to guess. Nor, on the other hand, are we able to measure the influence on bee interests likely to follow the destruction of the forests, now rapidly falling before fire and the ax. As to the sheep evil, that can hardly become greater than it is at the present day. In short, notwithstanding the widespread deterioration and destruction of every kind already effected, California, with her incomparable climate and flora, is still the best of all the bee lands of the world.—*John Muir, in Century Magazine.*

KEEPING BEES IN PARIS.

A TELEGRAM from Europe states as follows:

The practice of keeping hives of bees in the streets of Paris has spread so extensively that the Prefect of Police has issued an order forbidding it for the future, except in the case of persons who shall have received a special authorization. The preamble of the decree represents the great danger to the population of the existence of so large a number of bees in the neighborhood of the markets, refineries and schools, as well as the opinion of the Council of Public Health of the Department of the Seine condemning the practice.

DEATH TO HEN LICE.—If any of our subscribers laying poultry are troubled with vermin, we would recommend them to try some of Woodward's Medicated Nest Eggs. R. J. Trumbull & Co., San Francisco, are the agents for this coast.

INTRODUCING QUEENS.—Mr. Enas' article in the July number, on the above subject, should have stated, for the guidance of beginners, that the old queen should be removed before the new queen is given to the colony; and if there is no hive requiring a queen, or if she is of no value, her head may be pinched off.

THE Los Angeles County Beekeepers' Association hereafter meet on the second Saturday of each month. Each member should bear this in mind.

READ the advertisement of District Agricultural Association. It is bound to be a success under the management of friend Hewitt.

MEETINGS TO TAKE PLACE

1882.
 Sept. 19 —Michigan Central, at Lansing, Mich.
 " 26-27—Kentucky State, at Louisville, Ky. W. Williamson, Sec'y, Lexington, Ky.
 Oct. 3-6 —North American, at Cincinnati, O. Dr. Ehrich Parmley, Sec'y, New York City.
 " 5 —Kentucky Union, at Shelbyville, Ky. G. W. Demaree, Sec'y, Christiansburg, Ky.
 " 25 —Oregon State, at Oregon City.

[In order to have the above list complete, secretaries are requested to send us full particulars of future meetings.]

Honey Market Reports.

Office of the CALIFORNIA APICULTURIST,)
 Oakland, Sept. 15, 1882.
 Our late quotations received up to the hour for going to press, are as follows:

SAN FRANCISCO.
 HONEY—Comb, 13 @ 17c; light to extra white, 13 @ 17c; extracted, dark, 6 @ 7c; light to amber white, 8 @ 9c. $\frac{1}{2}$ lb.

BEESWAX—The quotable range is 26c.

CHICAGO.
 HONEY—Extracted, dark, 7c; light, 9c $\frac{1}{2}$ lb.

BEESWAX — A. H. Newman quotes choice lots at 25c; bright yellow, 24c; dark to good, 17 @ 22c.

CINCINNATI, Aug. 23, 1882.

The demand is good for extracted honey in small packages, principally 1 lb glass jars, and it is very good for manufacturing purposes. It brings 7 to 10c. $\frac{1}{2}$ lb on arrival. Arrivals plentiful for a month or more. There is some demand for comb honey, and a few lots made their appearance; 16 to 20c. $\frac{1}{2}$ lb is paid for it on arrival.

Beeswax is scarce and firm @ 25c. on arrival.

CHAS. F. MUTH.

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A HAND stamped here, with index pointing to this paragraph indicates that your subscription has been received, and will date from this issue.

MISSING NUMBERS.—These will be promptly sent if subscribers will notify us of the fact. Occasionally, through irregularity of the mail or otherwise, papers become lost. We gladly supply such lost copies.

SAMPLE COPIES.—Persons receiving this paper, marked "specimen copy" on the wrapper, will please consider it a respectful invitation to send us \$1 for a year's subscription, provided the paper pleases them. Any person who sends us three subscriptions, at \$1 each, will get the paper a year free. We send no papers to subscribers who do not pay in advance.

REMITTANCES to this office may be sent at our risk, if forwarded according to the following directions, viz: by P. O. money order, bank draft, or cash sent in registered letter. When none of these means can be had, we will receive postage stamps, but prefer the above, or coin or currency. One, two and three cent stamps we can use in limited quantities. In sending stamps, do not send them all of one denomination. One and two cent stamps are preferable.

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