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THE CALIFORNIA



APICULTURIST.

VOL. I. No. 4.

MAY, 1882.

{ TERMS: \$1.00 PER YEAR.
IN ADVANCE.

Our Workers.

[For the APICULTURIST.]

CONCERNING TABLES OF CONTENTS.

S. S. BUTLER, LOS GATOS.

TO say that I am pleased with the APICULTURIST, does not begin to express the satisfaction I feel in having a journal of our own—a real live California bee journal. For one, I will do what I am able to make it interesting.

In one of the late journals, in an article by Mr. E. E. Hasty, about "Marking articles for future reference." I manage it a little differently from what he does. As I read over the journals, I mark such articles as I think I shall want to look at again. After getting through reading, I mark all such in the table of contents. Now, having a large pile of journals, the accumulation of years, I find, when I want to look up an article (most always in a hurry), I can run through those journals whose tables of contents are outside of the first page much faster than others whose tables are sometimes in one place and sometimes in another, as the *American Bee Journal's* are. The editors of that journal have had the contents in several different places, as if it was in the way, and they wanted to get rid of it. Finally they have got it in the right place. I consider the table of contents the most important of any thing in a journal, and it ought to be in the most convenient place. If all the journals would put the table outside of the first page, as the *N. Y. Tribune* does, it would save their readers a great deal of time, and time is money.

March 28, 1882.

[For the APICULTURIST.]

THE LAND OF PRACTICAL APICULTURE.

A. F. MOORE, ROME, GA.

IT seems but a short time since gold was discovered in California, and at which time it was but a vast wilderness. Then people flocked from every part of the world to the new El Dorado, to share in the newly discovered treasure. The rumor of its being a gold country soon proved to be a fact. Later on, when the State held a prominent place in the galaxy of the Union, it was ascertained, or rather, at first rumored, that honey flowed in that already wonderful State as it was never known to do elsewhere. Again the rumor proved to be true. Bee-keepers soon poured into the new land of milk and honey, from the north, east, south and west, to engage in apiculture, for they verily believed it to be one of the best honey producing States in the Union, both for "quantity and quality," besides the large increase.

There is another very important feature connected with it, in the way of as *practical* and *scientific* beemen as can be found anywhere in America—for instance, John S. Harbison is one of the best posted bee-keepers I ever met; probably no man in this or any other country can produce a more thoroughly posted man in the science and nature of the honey bee. Besides the above mentioned person, you have many more whose reputations are world-wide.

Now, to cap the climax, California bee-keepers have got a "bee journal." I have received the two first numbers, and am well pleased with its make-up. Let every bee-keeper rally to its support, and make it a lively paper. Let every bee-

keeper in the State give his experience in apiculture in as short a space as possible, giving both sides, the good and the bad. Remember that, by an exchange of experience, knowledge is gained. You now have a paper by which each and all can feel interested in. Don't let your editor get discouraged; sustain him liberally, and make the APICULTURIST one of great credit to the State; so that your editor, at the end of the first volume, may exclaim "Veni, vidi, vici!" Bees in this section commenced to swarm the 12th of March, and are doing well.

(Written for the APICULTURIST.)

THE MANUFACTURE OF COMB FOUNDATION.

BY W. W. BLISS, LOS ANGELES.

THE first important part is to have good, clean wax, that is not adulterated, and of too dark a color. The next is to have a suitable machine for the manufacturing of the wax into foundation; and for that purpose I prefer the rolls to anything that is yet made. We next need a suitable boiler in which to melt the wax, which should be made as follows: The inside boiler should be about two inches longer than the length of the rolls, and at least two feet deep, and four inches wide, the outside one should be about three inches larger than the inside one and two feet deep. The inside boiler should have a strip of bound tin, one inch wide, soldered on the bottom, around the outside edge, with eight or ten one-half inch holes punched through it; this will prevent the wax from burning, which would scorch it.

The inside boiler also needs a partition, which should be made of IX tin, and placed in the center of

the boiler, and extending from top to bottom; it should also be punched full of one-eighth inch holes: this separates the melted from the unmelted wax and also acts as a strainer.

The outside boiler should have a flange *riveted* on the outside, about four inches from the bottom, this allows the boiler to pass through the stove top, and therefore will heat much faster.

Fill the outside boiler with water to within about four inches of the top, when the inside boiler is in its place; fill the inside boiler with broken pieces of wax, always placing them between the partition and the side of the boiler next to you, there should also be about a gallon of *soft* water (never use hard), in the inside boiler; now fire up and while the wax is melting we will see about our dipping boards.

These should be of one-half inch boards of the length and breadth that you wish your sheet of foundation, one of each size is all that is needed; they should be made of some soft wood (redwood or white pine), I use the redwood as it is the most convenient to get.

We next need a cooling tank, the handiest thing for this purpose is a small barrel holding about 15 or 16 gallons, with one head removed and filled full of cold water. The rest of the necessities are a box about 12x12x18, two small benches or chairs and an old case knife. Place the *tools* in the following order: one bench or chair, to be used as a seat, close to the side of the boiler opposite the stove pipe; the cooling tank at the left hand end of the boiler as you stand facing it; the box beside the cooling tank so that the four (*i. e.*, boiler, stool, cooling tank and box) form a square; the other stool place beside the first one, about one foot from it. Seat yourself on stool No. 1 with the boiler on your right, if you have placed things in their proper places, the box will be between your feet (full of broken pieces of wax with the knife in one corner), the cooling tank within easy reach, and bench No. 2 close to your left. Now if the wax is melted and the boiler full to within four inches of the top, and of the right temperature, we are ready to dip. The dipping board should be well water soaked before using. Wet the boards before

dipping, but shake off all the water you can. Put the board in the wax as deep as the length you want your sheet, repeat as soon as the wax stops dripping, dip three times for brood foundation, and once for boxes, hold the board *perfectly plumb* while cooling; as soon as the wax stops dripping after the last dip, dip it in the cooling tank, lift it out and place the lower end of the board on the left hand side of the box, and with a knife trim off the right hand edge of the board, then the bottom, slip the board over on the other edge of the box and trim the other edge; in so doing all of the trimmings will fall into the box with the broken wax. Always dip in the side of the boiler farthest from you, and replace the wax as it is dipped out by putting in broken pieces of wax on the other side.

When the wax begins to scum around the edges of the tank the temperature is right, but should not be any lower than that.

Lay a board on the bench at your left on which to place the dipped sheets of wax; to remove the sheet of wax from the dipping board; hold the board in the left hand, place the lower end on the board, to receive the sheet, and with the right hand loosen the sheet at the bottom and slip the board out from under it, and the sheet of wax will be on the board; turn over the dipping and repeat. When you have a pile about four inches high, take it upon the board and place it in the shade out of the way, and put another board in its place. Do not attempt to pick up the sheets without the board as the warm wax is very slippery and you are apt to drop them. Sheets should be made at least two weeks before milling.

(To be continued.)

(For the APICULTURIST.)

MAKING HONEY MARKETABLE

BY WALTER S. MAXWELL.

PRESENT prospects would indicate that the honey crop this season will be good if not over the average, and as the time is approaching when honey packages will be required, I wish to call the attention of apiarists to the importance of proper packages. A great mistake has been made by a large majority of California honey producers in the selection of proper packages which

has had a deteriorating effect on prices. I speak from personal observation as I am and have been engaged in the shipping business for some time back, and have handled more or less honey.

Coal oil cans and cases should not be used, especially the soiled and dilapidated cases, as their oily appearance does not correspond with the contents and is rather repulsive to the fastidious purchaser and consumer. New cans and especially new cases add much to the appearance and sale. Small packages from two to sixty pounds are preferable, as then the honey can be put more direct in the hands of the consumer, and when in small cans many will purchase that otherwise would not, as many use it limitedly. Honey in 2, 5, 10 and 12 pound cans are sold to dealers by the dozen, the same as any other canned goods, and are more convenient to handle. For foreign shipment barrels holding 112 pounds or more, are preferable; the 112 pounds corresponds to the English 100: barrels are more convenient to handle and hence the freight is less.

Another important matter and one that should not be overlooked, and that is labeling. Each package should be neatly and attractively labeled just what it is and nothing more, with the name of the producer. This will give the consumer additional assurance that he is getting a pure article, and when a brand gives satisfaction it will be sought for again and then create a market for that producer.

I am fully of the opinion that if these suggestions are acted upon and fully carried into effect, by all apiarists, they would realize a material advance in the market, and a demand for their products. I have to see a revolution in this department of this branch of industry commence with the season as it will be better for all concerned.

Los Angeles, April 20, 1882.

RECIPE FOR MAKING HONEY POP CORN BALLS.—Take one pint of extracted honey, put in an iron frying pan and boil until very thick, then stir in freshly parched corn, and when cool mould into balls. These will especially delight the children, and the older ones will not refuse them. Try them.

[For the APICULTURIST.]

THE TRANSPOSITION OF LARVA.

J. F. FLORY, LEMOORE, CAL.

I MOVED to Iowa in the Spring of 1861, and as I was always a lover of bees, I soon had several colonies to try my "luck" with in the Far West.

In July I got an Italian queen from the Rev. Mr. Langstroth. My brother and I commenced raising queens right off; but oh! what a howl some of the old fogies made when we told them how we raised them. "You can't stuff such nonsense down my sleeves. The idea that you can raise a queen from an egg that would hatch a worker! You *must* have a queen egg for a queen, a worker for a worker, and a drone for a drone."

I told my brother that we would have to contrive some way to convince them; so I put my wits to work and in a few days I had the "transposition" idea in my head. I told my brother of it and he thought it would work, so we removed a black queen, and in a few days they had started six queen cells. Then we removed the royal larva, put in its place "worker" larva from the Italian colony, and replaced the comb in the hive. Upon examining them again, in the course of a few days, we found they had five cells (they destroyed one), from which in due time five yellow queens were hatched. This, of course, was a clincher on the old fogies. My object in telling the readers of the APICULTURIST this is to instruct them or those who are not already acquainted with the process, how to apply it to the raising of

NATURAL QUEENS

From selected stock, in any colony during swarming season.

I prefer queens raised under the swarming impulse to those produced by any other method. My best stocks generally do the least swarming, while my poorer ones do the most; hence, I find it difficult to get all the queens I wish from my select stock by the natural process; but with the "transposition process" it is easy. Whenever a colony commences to produce queens under the swarming impulse, and if we do not want to increase our stock from this queen,

we just remove the royal larva already started and replace it with royal larva from our choice stock. By this means we can get just as good queens as could be produced by the natural means. The cells should be marked in such a way that the bees do not "steal a march" on us unawares and give us a queen of their own stock.

March 21, 1882.

[For the APICULTURIST.]

MURMURINGS FROM THE BEES OF NAPA COUNTY.

"HIVES" THAT ARE NOT HIVES—
EXTRACTING—FARMERS SHOULD
KEEP SOME BEES—PACKAGES FOR
HONEY.

J. D. ENAS, NAPA.

N EARLY all the hives used in this county are of the old Harbinson style. In many of these hives the frames are so connected by the combs running across them, that the brood apartment has not been looked at for several years, and some have not been looked at at all since the bees were hived. Especially is this so with hives, or more truly, boxes, in which there are no frames. Other hives are called the "Gallup," but are anything but that hive, or any other hive, for that matter, for they have nothing but split shakes for frames, and fitting so close that they are the best of moth-traps and "incubators."

There is much need of a good bee journal, like what the APICULTURIST is intended to represent, and through its teachings I hope and expect to see a reform in bee-keeping in this vicinity. The old excuse was that "there is no works on the subject adapted to this climate;" but that is past now, and I hope to see a change. When I first commenced keeping bees, I was informed that it was of no use to try to raise honey, as the bees would starve, and the moths would "kill the bees;" but for the several years that I have kept bees here I have had no such experience. I have not been long enough here, at the business, to have had the experience of a good year. The most I have secured to the hive has been 186 pounds in one season, and 75 pounds in three weeks to a new

swarm, besides enough to keep the bees from starving.

EXTRACTING.

In extracting, I never take all the honey, nor do I ever extract from combs containing brood, but spread the brood-combs, letting the brood hatch, when the bees will fill the empty cells with honey and give empty combs for the queen. They will remove what stores they need. I used to extract from all sealed combs, but I find that when the bees commence to seal the combs, the honey keeps as well as though it was sealed, thus saving the bees time and labor. I have had no sour honey so far.

There is considerable bloom in the foothills, and in some localities considerable blue sage. The hills are covered with honey-blooming flowers and wild mints, which give a good flavor to the honey.

I don't suppose there is a location on any farm in this neighborhood but where a party can get honey enough to supply all wants, besides sufficient for family use. By using a little intelligence, any farmer with from 6 to 10 good movable frame hives, and a good work on the subject, or the bee journal adapted to his location, could make it a source of income and a pleasant recreation to himself or some member of his family.

At the present time many of these so-called bee-keepers have bees in boxes that swarm every year and "throw several swarms," but "get not honey enough to use at home," and "have always had bees," and "could not run a ranch without them." These are the men who need more enlightenment.

PACKAGES FOR HONEY.

I would like to see the honey package discussed in the columns of the APICULTURIST. I got a sample of section stuff, dove-tailed by an apiarist of some experience, from Lemoore, but the trade at San Francisco did not favor the package. He could cut the stuff as fast as three or four men could put it together. It might not have been perfect, but was very ingenious. It would be a great step for the benefit of all concerned to establish a light, uniform sized section, that would be an improvement on the present. It would then be in order to make an improvement in the size of brood frames.

[For the APICULTURIST.]

LAS FLORES CAMP.

C. M. DRAKE, SANTA PAULA.

CHAPTER II.

BEE-CAVES.

ALL through the month of February, the two B. Masters watched the hogs they had taken to pasture, and employed their spare time in getting everything about the apiary in readiness, so that they might go to work when the time came, and not find "undone those things they ought to have done."

One evening, the boys came home quite excited; for, during the day, they had found a bee-cave, and, as they expressed it, "the bees were just boiling out of the mouth of the cave in a stream as big as your arm."

"We will take a couple of hives, mother, and some frames and wire, and we will transfer them to-morrow, and then, in a few days, we will bring them down to the apiary on a couple of poles," said Bob, who did all the planning.

"But the bees wont fasten the combs into the frames now, when they are not getting enough honey from the field to keep even," objected the boys' mother. "We thought of that, so we will take some of their honey and thin it and stimulate them for a few days."

"You and Ben can try it, if you wish, but I think it would be better to wait awhile till the rains come—if they ever will come," she added, sighing.

So, early the next morning, the boys drove their hogs near to the cliff where they had found the bee-cave; and taking a pick and shovel from the wheel-barrow they had brought along, they climbed the steep cliff.

A few strokes of the pick gave them a standing place, and then they went to work to enlarge the entrance to the cave, which was in a kind of rocky chalk, easily torn away by a good pick.

Nearly half of the wild bees (as they are called), found in the southern part of California, live in caves instead of hollow trees. It is not uncommon for two or three swarms to live in different parts of the same cave, and the boys had rightly concluded that this cave contained more than one colony. When the bees found that their home was as-

sailed, many a gallant amazon warrior sallied out to defend her castle, but the boys' heads were well protected with bee-veils, and they did not mind an occasional sting upon the hands.

"Now you little fellows, just keep still," advised Bob. "We are doing this for your own good (and ours too), for we intend to give you a fine new house of redwood, which is nicely planed and painted, and has a door much better than yours, which, I expect, lets in a heap of cold weather."

Ben here loosened a large piece of the rock, which rolled down the hill and left the mouth of the cave so large that the boys could easily crawl inside.

"Jeminy Jerusalem crickets!" ejaculated the young bee-hunter. "Just look at those combs, Bob!" And it did look rich to the eyes of the two B. Masters, for a hole about three feet high, four feet long and nearly as wide, was literally filled with combs and bees.

"I'll bet there are a dozen swarms in there," said the younger of the B. Masters, and it did look as if there was quite a number of colonies there; but, as the boys looked closely, they perceived that there were only two large clusters of bees, though there were many combs filled with honey—some granulated, and other combs filled with honey that was still liquid, but thick with a well-ripened old age.

"Now if you will pay attention," said Bob gravely, as he laid a board on the floor of the cave, and put a pile of frames beside it, "I will show you how a veteran bee-keeper transfers a colony of bees." Taking a piece of pasteboard, a knife and a brush of soft hairs from his pocket, he continued: "This pasteboard is exactly the size of the inside of a frame. I carefully brush the bees from this comb and lay it upon this board. Then I put my pasteboard over the comb, and cut around it with my knife, thus. I try to put all the worker comb in one frame, and put the drone combs or the mixed combs by themselves. I trim off the bottom of the comb so that it will have a broad and even resting place upon the bottom piece of the frame; and if necessary, I can insert other pieces above to fill up the frame; but breaks in a sheet of comb will always show, though the bees mend them so that they are

nearly as good as new."

"My veteran bee-keeper, your card of honey is too thick for a regulation comb," said Ben.

"We will remedy that in time, my young friend," replied Bob. "You see these pieces of stiff wire bent to fit over the sides of this frame and fitting snugly on each side of the comb to hold it in place. Now I tip up my transferring board with frame still on it, and when it is upright the transferred frame comes off nicely, and I carefully put it in the hive."

Thus cheerfully talking and making a pastime of their work, the boys filled a hive with the transferred combs, putting the brood in the center, and brushing the bees into the hive where they clustered upon the brood.

"There are about two quarts of bees in the hive now, and for a good hive this time of year, and the season so backward, there is enough," announced Bob, not knowing that a colony is never too strong.

"But what shall we do with the rest of this swarm? They can't raise a fertile queen when there are no drones."

"We will hunt up the queen and put her in the hive, and then we will put the rest in a box and unite them with that weak swarm we were looking at last week."

When the boys finished their work, they found they had thirty-four frames of nice combs, two good colonies of bees, and a big pan full of pieces of comb containing considerable honey.

"This will do to stimulate them so they will mend up their combs," announced Bob. "We will put these bees in this box and help that weak hive; and we will fill up this cave so the bees will not go back—away from their hive—though I hardly think they would leave the queen and the brood anyway; but you cannot rely on a bee's good sense after she is a month old."

"One of those queens was a beauty," said Ben.; "but like many another beauty, she married a rather poor looking fellow, judging by the color of her children. The other queen was not so good-looking, but she had more bees than honey, and 'handsome is as handsome does,' I believe."

"We won't discuss the relative

merits of dark and yellow bees, now," said Bob, putting an extra piece of comb-honey where it would do the most good. "We must go home, melt out our honey and wax, and mix about one part water to two parts of honey, so we can stimulate these fellows the rest of this week."

Then the boys loaded their box of surplus bees, and pan of honey and other traps upon the wheelbarrow, and started for home, leaving two double hives, nicely filled with combs and bees, where the bee cave had been.

"Be good bees," admonished Bob, giving them a parting look. "If you will fasten your combs in real nicely, I'll take you down to see a city of a hundred other families, and give you a town lot free gratis for nothing."

(Continued in our next.)

(For the APICULTURIST.)

A GOOD WORD FOR CALIFORNIA HONEY.

I HAVE seen notices of the California APICULTURIST and would like to peruse a copy.

I saw samples of California honey shipped to Thurber & Co., last fall, and the quality of it was equal to our best grades. If there was an abundant force of bees in your state, California would supply the world with honey. I well recollect the first and the subsequent importation of bees into California. I will, if you desire it, furnish you some items from this region.

C. J. ROBINSON.

Richford, N. Y.

SELL HONEY BY SAMPLE.—When honey is sold by the producer, the best way is to store it safely, and then sell by sample. If it is on wheels, buyers know that it can be had soon for a ghost of a price, if they are indifferent, as the owner is anxious to go home.—*B.-K. Exchange.*

BEES came with the Puritan fathers to the New World in 1670, and have long since become one of our economic necessities. They followed their descendants to California in 1853 and subsequent years, whence come fabulous accounts of their prodigious thrift.

"Thou cheerful bee, come, freely come.
And travel 'round my woodbine bower;
Delight me with thy wandering hum,
And rouse me from my musing hour."
—SMITH.

[For the APICULTURIST.]

THE BEES' TRAVELS.

BY FRANK BARTON, LOS ANGELES.

OVER valley, stream and mountain,
By the forest bubbling fountain,
Toiling ever, ceasing never, for the nectared
blooms I seek,
Kissing every lovely flower,
In the plain or woodland bower,
In their petals as I hover, softest words of
love I speak.

And they open at my coming,
When they hear my busy humming,
Saying, "take our treasured sweets, for
heaven will send us more again;"
For they love the little ranger,
Who, despite the toil and danger,
Comes to cheer their lonely solitude of far
off hill and plain.

By the tree-fringed, placid river,
On whose breast the sun-rays quiver,
Through the willows' shade, and alders
closely marshalled on its bank,
Where, from out the flags and rushes,
Forth the green frogs' warble gushes,
While the wild fowl scream and circle
through the thick grown osiers rank.

There the coarse snap-dragon grows,
And the water lily shows,
In its vestal robe of white, so pure and
fresh, so undefiled.
While there rests o'er all, unbroken,
Perfect peace, a fitting token
Of the benison that God doth shed upon
the lonely wild.

And as here and there I wander,
Many a truth o'er which to ponder,
Do I find, that speaks in volumes to the
thoughtful earnest mind,
Hidden truths which are the rarest,
As the scarcest blooms are faintest,
And which shed when found the sweetest,
subtlest odors on the wind.

Honey of the choicest kind,
In the plainest flowers I find,
While the fairest ones that promise most,
have often bitter dew,
Nor from brightest plumaged bird,
Is the sweetest music heard,
Poison fruits like gilded sins, are always
tempting to the view.

ANTIQUITY OF THE BEE.—An exchange remarks as follows on this subject:

The bee bears the same relation to the other orders of insects that the Caucasian race bears to the other races of mankind; it is the highest type of insectian form and development. Endowed with instinct, and "a kind of reason, differing perhaps only in degree from that of man, these insects outrank all other articulate." In the fossiliferous history of our earth, the bee does not date far back, but is the last to appear upon the earth's surface.

In the Field.

[For the APICULTURIST.]

BEE FEED IN SUMMER.

"BREVITY, THE SOUL OF WIT."

F. L. WRIGHT, PLAINFIELD, MICH.

I HAVE received the first two numbers of the CALIFORNIA APICULTURIST, and, to say the least, am much pleased with it. Sometimes, when glancing at the mass of matter found in some of our older bee journals, I cannot help wondering if any of those who, month after month, furnish their regular contributions, ever heard that "Brevity is the soul of wit." If they ever did, they surely have forgotten it.

Life is too short to wade through page after page of matter to get an idea that might have been crowded into one-tenth the space, and been far more intelligible at that. We are glad to see that one or two editors practice this "boiling-down process," giving us the essence and leave out the plethora of words. In this respect we judge the APICULTURIST to be a model.

BEE FEED IN SUMMER.

In your March issue one of the contributors wished to know what to plant to furnish pasture for bees in midsummer.

I would recommend sweet clover (*Melilotus Alba*). This will stand any amount of cropping, and can be kept back so as to bloom at any desired time. It furnishes pasture for bees in abundance, and will grow anywhere and everywhere that it can get a foothold. Next to this, we would recommend the mammoth red clover (*T. pratense*). This, like the preceding, can be pastured or cut back so as to bloom when you wish it to, and having smaller, or rather shorter tubes, it is visited by bees much more than the medium clover. April 10, 1882.

HOW TO START AN APIARY.—A friend of ours living in the mountains, has succeeded in starting quite a respectable apiary by placing empty hives in the tops of trees in various places upon the mountains, which have been taken possession of by absconding swarms. He says he has captured many in this way.

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Editorial.

THE APIARY FOR MAY.

OWING to the lateness of the season, swarming will necessarily be a little later than usual and will be lively this month, likewise honey gathering.

As we treated upon the management of swarms in the April number we shall say but little about it now, but will give a word of caution to the inexperienced relative to artificial swarming, as we learn that some who have strong colonies (especially those that are in close proximity to alfalfa fields), are dividing without an eye to propriety or justice to their own interest or that of their bees, by making two or three colonies out of one—thus spreading them out very thin. This is to say the least of it reckless, and extremely indiscrete. In every apiary where this system of artificial swarming was practiced last season, there are not one-fifth of the colonies alive to-day, at least this has been our observation in apiaries that we have recently examined, while those that were made strong

are at least three-fourths or more alive, and in good working condition. SUPERSEDING WORTHLESS QUEENS.

Every colony should be provided with a prolific queen—a few young and fertile queens should be kept on hand to supersede old and worthless queens and to supply any new swarm made, so that no time may be lost in the midst of the harvest. Great care should be exercised in the introduction of queens so that no loss may occur. There are various methods of introducing queens, but we will give but one method and that which we regard as the most reliable.

INTRODUCING QUEENS.

For the introduction of a fertile queen use a wire cage which may be made by wrapping a small piece of wire cloth around a square, round or flat stick—double the cloth over the end of the stick and press or stamp the end upon something solid so as to make it retain its place. This done, the stick may be drawn out, leaving one end of the cage open. The cage should be from two and one-half to three inches long, and from three-quarters to one inch wide, and from one-half to three-quarter inches thick. When the queen is placed in it, the open end may be fastened with a little wax or piece of comb pressed in. When the cage is placed in the hive, the waxed end should be turned down, the cage resting between the frames or combs near the center of the hive, and remain there from 12 to 24 hours, or until the bees cluster thickly around the cage, thus indicating their acceptance of their new queen. When she may be liberated at the expiration of the above time with perfect safety.

INTRODUCING UNFERTILE QUEENS.

To introduce unfertile queens no cage is required. A comb containing brood and honey may be lifted out and the unfertile queen placed upon it. The bees will not give

her much more attention than they would a worker. Hold the comb in your hand two or three minutes until the bees have become a little familiar with her, when it may again be returned to the hive. When on examination, in five or six days after, she will be found performing the usual duties of a queen. It has been said by the leading lights in apiculture, that unfertile queens cannot be successfully introduced. We admit they cannot be in a cage as fertile queens are, as the bees will not cluster around them and keep them warm and feed them as they will a fertile queen, hence they perish for want of attention. We have introduced hundreds on the plan given, and have seldom been unsuccessful.

EXTRACTING.

Extracting will commence this month. Strong colonies will be ready early in the month. Care should be taken not to commence this operation too early, before the honey is capped over, or at least three-fourths of it. Honey should be fully ripe before taken, as it contains more or less water, which does not evaporate until capped over, unless by some artificial means. When honey is canned in a "green" or unripe state it is apt to sour. A few years ago the market for good honey was much damaged by unripe honey thrust upon it by unskillful and careless apiarists, whose object was personal gain without regard to the general good of the fraternity.

COMB HONEY.

If comb honey is desired, the section boxes should be at once put on. A little comb or wax attached to the upper bar, and if the hive is level straight comb will be built. A honey board or a piece of grain sack or other cloth, with a few holes cut in, should be put over the frames, upon which the boxes are placed. Attending to this precaution will

often prevent the queen from entering and depositing eggs in the surplus boxes. But when her majesty persists in rearing brood in the boxes, raise them up and slip empty ones underneath, and she will not be likely to travel the intervening distance to deposit eggs, as at this season time is honey to the bee as well as money to the bee-keeper.

MARKETING HONEY.—We had thought of saying something on the subject of marketing honey, but the remarks of Walter S. Maxwell, in this issue, expresses our views very clearly, and we trust will be acted upon by honey-producers generally. Mr. M. shipped 100 tons in second hand cans and cases, last season, to France. The leakage was great, but sales quite satisfactory under the circumstances.

Editor's Portfolio.

THE DIFFERENCE.—We are somewhat annoyed and inconvenienced by some of our correspondents addressing this office as the "Agricultural Publishing Company." Now, if there was such a company in Oakland, all letters thus addressed, but intended for us, would go to them; even the money orders and registered letters, too. So far we have received all such letters, but then not without some inconvenience. Please remember to address all business communications to the "APICULTURAL PUB. CO., Oakland, Cal.," and not to any individual member of the company. Let the same rule apply to money orders, which should be made payable as above.

Again, we would request our exchanges when they clip from our columns, to give credit to the CAL. APICULTURIST, and not the *Cal. Agriculturist*, for there is no such journal published in this State, and any credit given to such is wasted. Credit our journal and it will be appreciated. We have noticed that the *N. W. Farmer and Dairyman* and the *Prairie Farmer* have made this mistake.

SECOND TO NONE.—Four issues of this journal have now been published and gone to the public to show what may be accomplished in this Paradise of bees. We sent our first number forth when the prospects for this year were anything but encouraging. Whether the advent of a bee journal in this State has had any influence with the weather clerk in inducing him to favor the apiarists of this State with a good season we leave it to our readers to say. Of course, if you find that it has, please to give us due credit. Let no one say that we were selfish and started the APICULTURIST because we knew it was going to be a good year and we could not help but make it a success. Never could a paper be made so useless it merited the patronage of those for whom it professes to labor. If we have done this let the bee-keepers stand by us. We are receiving letters from all parts of the Union, saying that our paper already stands second to none of its kind in the world. Why should it not be so. Is not this a great State and can not it do, at times, prodigious things. We hope to do still better before the season is over. Subscriptions are still coming in at a very lively rate. Whose next?

THE REASON WHY.—Some of our friends ask us why the APICULTURIST is not published in Los Angeles, the heart of the honey portion of the State. Our reply in brief is that for more than one year we tried to do so, and after having made arrangements with two different parties for the publication of a bee journal, and they failing to live up to their agreements, we at last gave it up. Soon after, or in the course of a year, a practical apiarist near Oakland wrote us that, if a journal could not be started in Los Angeles, a company could be organized there with sufficient capital to ensure its success, if we would assist. Accordingly, satisfactory arrangements were made and work was begun. These are the facts in a nutshell. We have entered the field of labor with no other motive than the general interest of the fraternity and the advancement of the science.

CLUBS.—Get up clubs for the APICULTURIST. Read premium offer on another page.

DEATH TO SKUNKS—HOW TO PREVENT SWARMING.—A reader of this journal sends us his method of killing skunks, which we give to our readers, as there are but few apiaries that are not troubled with these highly-perfumed animals. No doubt they will be glad to hear how to make the presence of these anything but fragrant perfume dispensers mighty few and far between, even greater and more distant than angles' visits. "Take an egg," says our correspondent, "and boil it till the yolk is a little thick; cut it in two, mix a little strychnine in the center, and in the evening place it near the hive. A dead skunk will be the result. It is said they are quite fond of eggs." Our correspondent asks: "How will he keep bees from swarming?" We know of no better way than to cut out or destroy all queen cells every eighth day during the swarming season.

HONEY EXTRACTORS.—A reader wishes to know whose make of extractor is the best. We are not prepared to say which is the best; nearly all are pretty much alike, nowadays. King's, and Newman's Excelsior, are about alike, the former not being so fancy as the latter, but undoubtedly stronger. Roots, and Muth's, have the same style of gearing, but the former has vertical sides, while the latter has slanting sides. From the many premiums King's Extractor has received, we should judge it must be the best. We believe King's Extractor cannot be had on this coast. The other makes named can, we believe, be had from J. D. Enas, of Napa, and also from Harper, Reynolds & Co., of Los Angeles.

"THE CONQUEROR" BEE SMOKER.—Bingham & Hetherington, of bee smoker fame, have at last on account of the steady and increasing demand for a large sized smoker, commenced the manufacturing of such an instrument, and have called it "The Conqueror." It no doubt will conquer the most ferocious bees, as the writer can vouch for its doing so. The fire chamber of this smoker is 3 inches in diameter and seven inches long, and will burn any kind of wood that may be placed in it. The cut of this smoker shown on another page, gives a good representation of it.

Our Extractor.

WHY DOES NOT CALIFORNIA HAVE A SURPLUS OF HONEY EVERY YEAR.

EVEN when there is a deficiency in the honey crop here, the mortality of the bees need not necessarily follow. All of our good honey is produced in the mountains or foothills, but there are seasons when, from different causes, there is no secretion of nectar in the mountain plants, consequently the bees gather no honey; but they can be saved by moving them to the valleys, where there is a succession of bloom, especially on lands that are irrigated; and on such lands you can grow whatever you wish to plant, enabling their owners to sow feed for them any time of year. Rape and mustard will bloom the year round. There are also, in these low lands, hundreds of a res of different varieties of wild flowers, which bloom from December until May. The eucalyptus, acacia and pepper tree have been extensively planted here, and they afford both honey and pollen. I could enumerate many other honey plants which we could cultivate for the bees, but the above will suffice for this time. You will ask, "Why, then, does not California have a surplus of honey every year?" It is because the Californian has had his palate so pampered with good mountain honey, that he cannot descend to eat strong mixed valley honey, which is much darker and of a very inferior quality.

I heartily approve of the action of the National Convention in choosing Wm. Muth-Rasmussen as their Vice President for California. I think the mantle could not well have fallen on more worthy shoulders.—*J. E. Pleasants in American Bee Journal.*

QUITE A CONTRAST

BEES are gathering more than they can consume here in the valley, and are breeding first rate. The pepper trees, the Australian gum trees and willows, are in bloom; also, lemons and limes. Bees almost cease breeding here in the month of December, even if the

weather is ever so favorable. I had young queens fertilized as late as the 10th of November, and by the middle of this month (February) I can begin raising queens again. That would make about nine months in the year that one could raise queens and increase his colonies. Quite a contrast between here and where I was born in Canada, sixty-five miles north of Vermont. There, three months in the year was all we could calculate on, and in some seasons one month was all we could increase safely in.—*E. Gallup, Santa Ana, Cal., in Bee-Keepers' Instructor.*

IN BAD TASTE.—A German Convention never feels itself in full dress until it has secured the presence of a member of some royal house, or a brace of noblemen, whose appearance, health, condescension, etc., are descanted upon by the page, in the report. A record of the achievements of flunkysim seems out of place in a bee journal, but not more so than the monthly avalanche of platitudes of A B C scholars, and one-year experiences, which is pored over by some of our American bee journals.—*Bee-Keepers' Exchange.*

SWEET CLOVER.—Our Michigan correspondent advises the planting of this clover for summer bee feed, and says it "will grow anywhere and everywhere that it can get a foot hold." From what we have heard of it, it seems to die out in our dry season. If any of our California readers have tried it we will be glad to have them give their experience with it in these columns. Also in regard to other clover mentioned by the same writer.

HAS SETTLED HERE.—Captain L. S. Buttler, formerly one of the leading apiarists of Los Angeles county, but now of Riverside, was in Los Angeles lately. He has rented, for this year, his interest in the Verduga Apiary to D. S. Given, of Hoopston, Ill., who, it will be remembered, is a well-known apiarist and inventor of wired comb foundation. We congratulate Capt. B. in being so fortunate as to have his apiary in the hands of so skilled an apiarist.

How the "Apiculturist" is Received.

HAS COME AT LAST.—From Yamhill, Or., Mr. W. M. Hadley asks for a sample copy, and says he has been wishing for a long time for some one to start a bee paper on this coast.

"FILLS A NICHE IN THE LITERATURE OF THIS COAST."—From Mr. Geo. A. Temple, Santa Barbara, we have received the following flattering compliments: "Your publication fills a niche in the literature of this coast which has long been invitingly open, and deserves the hearty support of all progressive apiarists. May it achieve the success which well directed enterprise and able management merit." Again, under date of March 16th, the same gentleman says: "Since writing the previous note, I have received three more subscriptions at the expense of no more than a few words of persuasion and a view of the paper."

KNOWLEDGE IS POWER.—The novice should remember that the first step towards successful bee-keeping is to read some standard work on apiculture, and also take an apicultural journal published in his country or in a similar climate. By doing this he will learn how to manipulate bees from the most successful apiarist.

THE PREMIUM QUEEN.—No name will count for the premium unless \$1.00 is sent, though two names at 50 cents each may count as one.

BURNT OUT.—S. D. Barber of the American colony near Wilmington, recently lost his house by fire, which he had just finished and moved into together with all its contents, no insurance. Mr. B. is an apiarist of notoriety, is the author of an apicultural work and the three-square hive, he is a cripple and now helpless with a family to support, which renders his affliction a sad one.

SEND US NAMES of the bee-keepers of your locality and we will send them sample copies. When you have time, obtain a few subscriptions for us. It will pay you.

Books and Periodicals.

ANOTHER BEE JOURNAL.—Just as we go to press we are agreeably surprised to find that another publication devoted to bees and honey has made its appearance. The initial number is before us and its name is *The Juvenile Gleanings; or the Boys' and Girls' Bee Journal*. It is published and edited by the veteran apicultural editor and publisher Mr. A. I. Root, of Medina, Ohio. It contains eight pages the same size as those of *Gleanings*. Wont the boys and girls be delighted to know that they have a journal of their own and the older readers of *Gleanings* will have more substantial reading, as the children's department will no doubt be discontinued.

Bro. Root is eminently qualified to "instruct the young mind how to shoot," and to take care of bees, and before many years we may have a new generation of apiarists keeping bees after Bro. Root's methods. We wish the new *Journal* success.

WE HAVE received the first four numbers of *Life Crystals*, a California health journal, published and edited in Oakland, by Mrs. Carrie F. Young, M. D., who is well known as a writer for the agricultural and medical journals of this State for many years. The pages are the size of those of this journal, but two columns to the page. It contains 16 pages and cover, and is a journal that should be a welcome visitor to every family in this fair State. Terms, \$1.00 a year. Write to the editress for a sample copy.

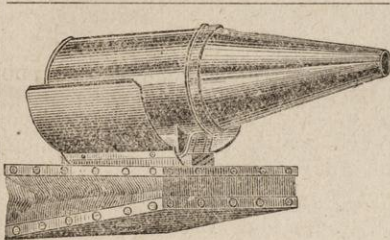
THE *Bee-Keepers' Exchange* for April also comes to hand with a new heading. There are no bees in it, unless that butterfly-looking insect is intended for one. Why, Bros. Houck & Peet, has Oscar Wilde been in your town? We should think he paid you a visit, as your artist has introduced—we were going to say sun flowers—but flowers innumerable will do, into your heading. The number before us is the best yet, and contains many articles by some of America's best apiarists.

THE *Independent*, of Santa Barbara City, is a weekly paper that that city should be proud of. It is pure and open in its principles, making it a paper that all can subscribe for.

The New England Bee Journal.—This is the name of a neat monthly magazine of 20 pages, published in the extreme east part of the Union, and is apparently healthy and vigorous, if we were to judge from the first number before us. It is published and edited by H. A. Poole, Mechanic Falls, Maine, at 60 cents a year.

Gleanings for April sports a new heading. Brother Root, are those insects we see buzzing about some of the South American stingless bees we heard so much about not very long since? They do not look much like our honey bees, so we are of the opinion they must be some stingless bee.

THE *Willamette Farmer* is the oldest agricultural journal published in our sister State, Oregon. It is a large eight-page paper, and its weekly visits are looked for with interest at this office. A sample copy may be had by writing to S. A. Clark, manager Farmer Pub. Co., Portland, Or.



BINGHAM'S "CONQUEROR"

Evening Express.—Of the many daily papers published in southern California, the one that bears the above title is the best conducted, has the most news, the best editorials, and in fact, it is the best general newspaper issued south of San Francisco.

THE *Northwestern Farmer and Dairymen* is a nicely gotten up 16-page monthly journal, devoted to the rural industries of Oregon, and published by Casey & Blythe, Portland, Or., at the low price of 75 cents a year.

THE *Weekly Bee Journal* comes to us regularly, and is always filled with topics of interest to bee-keepers.

BURNED OUT.—Mrs. Melloy, widow of the late P. C. Melloy, who was a prominent bee-keeper of Los Angeles county, had her house, with all its contents, destroyed by

fire on the 11th of March. We are not in possession of the particulars, but we understand that she was unable to save anything, not even the wearing apparel. Mrs. M. is in feeble health, and is left with two small children dependent upon her. Many generous hearts are coming to her relief, and we trust she will soon be placed in comfortable circumstances. We have often thought that apiarists everywhere should have a charitable organization in their fraternity to assist in such and similar cases as the above. What say our readers?

Notes and Gleanings.

USE LARGE SIZED SMOKERS.—Just a word of advice to those purchasing smokers. Do not buy one with a fire tube less than two inches in diameter. Even those keeping only a few colonies will find the larger sizes much more satisfactory than the smaller ones, while to those keeping a large number the extra cost of the larger sizes is nothing compared with their superior qualities. No charge for the advice.—*B. K. Instructor.*

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 sized 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 per centage; 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 it is not advisable for bee keepers to ship their honey in packages not to exceed 50 pounds, and, in my opinion, those of 10 and 15 pounds are preferable.—*Corr. American Bee Keeper.*

What the Press Say of Us.

"CANNOT BE SURPASSED."—CALIFORNIA APICULTURIST. We have just received the initial number of the above Bee Journal. It is a very neat eight page 24 column Journal, devoted to the interests of California bee keepers. It is full of good things from new correspondents, that we are not acquainted with, but judging from the tone of their articles, they cannot be surpassed by any of our Atlantic writers.—*American Bee Keeper* for February.

In the March number of the same journal we are paid this exceedingly flattering compliment:

"STILL IMPROVING."—Just before going to press we received the March number of the "California Apiculturist," and it is larger and better than the February number. If it improves each month like it has the last, it will be the largest and most handsome Bee Journal in the world. Send for a sample copy free, address as above.

Oakland, California.

"A VALUABLE ASSISTANT."—We have received a copy of THE CALIFORNIA APICULTURIST, a new paper published on the extreme west coast of our continent, as its name indicates it is devoted to the bee-keeping industry. In appearance it resembles the *A. B. J.* it being the same size sheet, and although only eight pages of matter, yet what there is of it is good. It will be a valuable assistant to the bee-keeper in that country, and we too shall be glad to welcome it as one of our exchanges.—*Bee-Keepers' Exchange*.

"MAY IT LIVE AND FLOURISH"—We have received a copy of the CALIFORNIA APICULTURIST, a new bee paper, started at Oakland, Cal., for the benefit of the bee-keepers of the "Golden State." It contains 8 quarto pages, size of the *A. B. J.*, and presents quite a creditable appearance. May it live long and flourish. It is published by the Apicultural Publishing Co. at \$1.00 per year. N. Levering, a well known writer and bee-keeper, is the editor.—*Bee-Keepers' Instructor*.

"OF PRACTICAL INTEREST."—The first number of the CALIFORNIA APICULTURIST is on our table. Its appearance is decidedly neat, and the matter contained of practical interest. The industry of bee-keeping is of sufficient importance in this State so that a journal of this character should be well supported. Mr. N. Levering, of this city, is the editor, and the paper is published in Oakland.—*Los Angeles Express*.

THE CALIFORNIA APICULTURIST for April makes a *still more* "CREDITABLE APPEARANCE;" and since we are not squeezed for room quite so much as we were, we can afford to say it in bigger letters.—*B. and G. Bee Journal*, and perhaps, in May *Gleanings*.

Our Advertisers.

THE ASBESTINE STONE Co., of Los Angeles are manufacturing a full line of artificial stone ware, pipes, etc. Their sub-irrigation system, invented by Mr E. M. Hamilton, will soon come into general use on account of its great economy in the distribution of water. It is just what every bee ranch wants, that has a limited quantity of water.

QUINBY'S NEW BEE-KEEPING.—L. C. Root & Bro. advertise this practical work as well as a full line of apiarian supplies in this issue. No more reliable men can be found than these men are. They are the successors of the Father of American bee-keeping.

WE CALL attention to the advertisement of S. W. Luitwielder. This is the most reliable house of the kind in Southern California. No wagons give better satisfaction.

SEE THE advertisement of E. E. Shattuck, who wants to sell 400 colonies of bees.

J. D. ENAS advertises a new stock of bee-keeper's supplies, that he has lately received.

SMITH & STEARNS, who have handled honey for fifteen years, are out in a card in this number.

COMB FOUNDATION made from pure wax, cut in sheets to suit, per pound, 35 cts. When wax is furnished, then only 10 cts per pound.

J. MADORY,
San Gabriel, Cal.

WILD HONEY.—B. F. Franklin, of Ventura, has arrived in Los Angeles with a nice lot of wild honey, taken from the rocky cliffs of the mountains. He reports much wild honey in his section.

A NEW BEE BOOK.—We understand a new work on apiculture has been published in New Zealand. When received we will notice it further.

SUBSCRIBE NOW.—Many will receive this number as a sample copy and will not receive another unless they subscribe.

On File.

The following articles are now on file and will appear in the June number: "Chickens vs. Moths," and "Bleaching Beeswax," by Mrs. Hilton; "Mustard as Bee Feed," by F. A. Bliss; "Las Flores Camp, Chapter III, Breeding up for Work," by C. M. Drake; "The Law on Adulterated Foods," by W. A. Pryal; "Bee Flora of Napa County," by J. D. Enas; "Working for Strong Colonies and Plenty of Honey," by R. Touchton; "Is Bee-Keeping Profitable," by G. M. Doolittle; "Italians again—are they able to keep out the Moths?" by Isaac B. Rumford; "The Best Country in the World for Bees and Honey," by J. E. Pleasants.

Honey Market Reports.

NEW YORK, April 11.

BEESWAX.—21 @ 23c. $\frac{1}{2}$ lb.
HONEY—Clover, small box, choice, 15 @ 16c. $\frac{1}{2}$ lb.
HONEY—fair to good, 13 @ 14c. $\frac{1}{2}$ lb.
" buckwheat, 11 @ 12c. $\frac{1}{2}$ lb.
" extracted, white, 10c. $\frac{1}{2}$ lb.
" " buckwheat, 7 @ 8c. $\frac{1}{2}$ lb.

SAN FRANCISCO.

Exports of honey from April 1st to April 11th:

	Cs.	Value.
City of Tokio, China.....	3	\$16 58
Japan.....	1	4 00
City of Mexico, Mexico.....	1	2 00
G. W. Elder, Victoria.....	57	281 25
Zealander, Australia.....	189	1042 50
	251	1346 25

We quote: White to extra, white comb, 14 @ 16c. $\frac{1}{2}$ lb.; extracted, amber, 7 @ 7½c. $\frac{1}{2}$ lb. white, 9 @ 10c. $\frac{1}{2}$ lb.

The exports of honey from San Francisco for March were 81 cases valued at \$432. The exports for April will be fully treble that for the preceding month, which shows that the foreign demand is increased and it will be observed that by the above the exports given are only to ports on the Pacific sea board.

Publishers' Notices.

BEE-KEEPERS, subscribe for your paper.

BE PARTICULAR to give your post office, County, State and name, when writing to this office.

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

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.

PREMIUM QUEEN.—For the largest list or club of subscribers sent to us by the 25th of September, 1882, from any person on the Pacific Coast, J. D. Enas will send free, one tested Italian Queen. We have accepted this offer and are now waiting for the fun. Who's ready? The winners' name will be given in our October number.

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.

Advertisements.

RATES OF ADVERTISING.

Per one column	\$3 00	per month
" half "	5.00	"
" fourth "	2.50	"
" eighth "	1.50	"

No advertisements to count less than one inch, unless inserted 3 or more times.

Advertisements for three months, 10 per cent. less than above rates. For six months, 15 per cent. less than above rates. For one year, 20 per cent. less than above rates.

TERMS:—Transient advertisements payable in advance. Yearly contracts payable quarterly in advance. We will adhere strictly to above rates.

We shall admit none but worthy business advertising in our columns, and keep clear of advertisements of a doubtful character.

Bees for Sale.

Four hundred colonies of Italian bees for sale cheap. For particulars, address,
E. E. SHATTUCK,
LOS ANGELES, CAL.

HARPER, REYNOLDS & CO.

—THE—

Leading Hardware House

—OF—

SOUTHERN CALIFORNIA

Notwithstanding the FIRE, have

The Largest Stock! The Lowest Prices!

HONEY CANS, HONEY EXTRACTORS, BEE MEN'S SUPPLIES

AGENTS FOR

BINGHAM & HETHERINGTON'S

HONEY SPECIALTIES!

We have the ONLY machinery in Southern California for making cans. We propose to keep constantly on hand EVERYTHING in the HONEY LINE.

We believe in

Square Dealing and Low Prices!

HARPER, REYNOLDS & CO.

No. 1 Arcadia Block,

Los Angeles St. Los Angeles.

MENTION THIS PAPER.

mar-3t

JOS. D. ENAS, BREEDER OF PURE ITALIAN BEES AND QUEENS.

Nuclei and Colonies in Season.

COMB FOUNDATION, BELLOW'S SMOKERS, BEE VEILS, KNIVES, BEE BOOKS, SIMPLE HIVES, EXTRACTORS, &c.

Address J. D. Enas, Sunnyside, Napa P. O., Cal. jan-3t

QUEEN BREEDERS' DIRECTORY.

FRIENDS! If you are in anyway interested in
BEES OR HONEY

We will with pleasure send you a sample copy of our MONTHLY GLEANINGS IN BEE CULTURE, with a descriptive price-list of the latest improvements in Hives, Honey Extractors, Artificial Comb, Section Honey Boxes, all books and journals, and everything pertaining to Bee Culture. Nothing patented. Simply send your address on a postal card written plainly to

jan-3t A. I. ROOT, Medina, Ohio.

The New England Bee Journal,

A monthly magazine devoted to bees and honey. Published at 60c. per year, by Henry A. Poole, Mechanic Falls. The New England Bee Journal is the only apicultural periodical published in New England. Its contributors are well learned and experienced men on the care of bees, thus offering its readers an organ of bee literature that is instructive to the beginner and interesting to the experienced. As a medium for advertising it is unsurpassed, since this journal has a wide and extended circulation in New England and Canada; it also circulates in every state and territory in the Union where bee-keeping is carried on. Send 3c. stamp for specimen copy.

Address, HENRY A. POOLE, Publisher.
MECHANIC FALLS, ME.

WILLAMETTA FARMER

—IS THE—

Oldest and only Agricultural Newspaper in Oregon.

1 year, \$2.50. 6 months, \$1.25.

ample Copy Free. S. A. CLARKE, Manager,
PORTLAND, OREGON.

Free Homes.

For particulars address, with stamp, Publisher UNION LAND REGISTER, Boerne, Kendall Co., Texas.

A new map of Texas, pamphlet pertaining to public land and lands for sale, illustrated and descriptive circulars about Texas, a sample copy of the Union Land Register and a copy of the Texas Live Stock Journal sent on receipt of \$1. m-tf

O. B. SMITH. WM. H. STEARNS

STEARNS & SMITH,

COMMISSION MERCHANTS IN

DAIRY & FARM PRODUCE

AND DEALERS IN

Butter, Cheese, Eggs, Honey, Etc.

No. 423 FRONT ST.,

Near Washington, SAN FRANCISCO.

We have made the sale of honey and Wax a specialty for fifteen years.

QUEEN

BREEDERS'



DIRECTORY.

Cards of two lines inserted in this department 30 cents each insertion; each additional line 10 cents; or two lines for a year, \$3.00.

J. D. ENAS, Sunnyside, Napa, Cal., breeds Pure Italian Bees, Colonies, Nuclei and Queens in season. mar-ly

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