

## The Apiary.

### SPRING MANAGEMENT OF BEES.

BY C. E. PHENICIE.

ing a number of good features, and we are informed that it has proven a great success, the fruit having kept in splendid condition and commanding this spring as high as \$1.35 per box. The dimensions are 12x40 feet, and height of six feet in the clear. It is sunk about four feet below surface level, and banked up over roof with a foot of earth in the usual manner. The interior is divided in the center with a passageway, running full length of cellar, and on each side are the apple bins, about 5x3 feet. Each bin is divided by three shelves 18 inches above each other which hold the fruit. Ordinarily it is the practice to pile the apples in the bins several feet deep crushes and ruins those at the bottom. The shelving prevents this and gives a free circulation of air. Good ventilation is necessary and has been provided for by a window at either end, which may be closed in cold weather. The shelves are inclined toward the front on a slope of 3 inches, so that when boxing the fruit rolls down within convenient reach of the packers. The capacity of this cellar is between 400 or 500 bushels.

#### HOW TO PRUNE.

Most amateurs are afraid to cut back young trees thinking to get large trees sooner. Young trees when properly cut back make a much more thrifty growth, better form and become more productive. Some advocate heading back to a certain measure, having all trees branch at a certain height. I believe in pruning each tree for its individual good. I would have a model in mind for each tree and work to bring it as near to the model as possible, without sacrificing too much of the natural inclination of the tree.

My prune orchard is branched high, four feet and even higher, but if I were to start a new orchard I think I would head very low, say two feet and under. Low heads are much more convenient for pruning, spraying, thinning and picking, and the greatest advantage I think is the protection and shade they give their own trunks. I have not the proof positive, but have the theory in mind that short trunks are much freer from canker, dead spot and gummosis, as well as sun scald.

One fault to be seen in old orchards, especially with cherries and pears, is in permitting them to run in tall spire form, making it inconvenient and expensive to harvest the fruit or prune or spray.

For cherries and tall growing varieties of apples and pears I would suggest a medium-rounded, pyramidal form with a rather open top, and for Italian prunes and the pears and apples of the spreading habit of growth, a rose formed head with a rounded open top.

Peaches should not be permitted to grow long, slender branches, with only a little bearing wood at the end.

We wish to urge pretty strongly the necessity of proper spring care. One great difficulty with many, especially the beginner, is having his colonies too weak; when he takes out a comb and sees it fairly covered with brood, he pronounces it a very strong colony, and, perhaps, thinks it ought to be divided; but were the colony in the hands of an old "bee master" he would at best pronounce it a fair colony. When the hive becomes so full that you cannot see the comb at all, it can be considered a strong colony and will be divided if desired.

In looking over the bees, should you find a colony quite heavy, do not fail to watch it closely as the season progresses.

If your bank account is large and income liberal you spend freely, but if it is nearly exhausted and your income light, your expenditures must be in accordance. Did you ever think that this may be true of the bees? Our experience has taught us that it is so.

Now then, the stores of the heavy colony are abundant, they feed the queen liberally, she begins to lay rapidly, and of course, it requires a great deal of honey to feed this brood, hence the supply is soon exhausted, and the largely increased family is living from hand to mouth; now should there come a season of stormy weather, they will have to be taken in hand by the apiarist.

This is the prime cause of the young brood being carried out after such a season of inclement weather; the supply of honey being exhausted necessitates the starvation of this large amount of brood. Then, too, during a warm spell of weather and their season of plenty, they expand their brood to all they can cover, then when the sudden cold snap comes upon them, must contract their cluster and allow a portion of the brood to chill and die, which is carried out as soon as the weather permits.

Now for the colony with the scanty supply. They have foresight not to raise a large family, with the danger of famine before them, but economize as much as possible, and as a result are weak in numbers in the spring, and by the time they become strong enough to gather honey the season is over. So it is obvious that it does not pay to winter bees by keeping them upon the verge of starvation; sugar syrup does not cost

much and feeding is simply and quickly done.

There are several methods of feeding. Many put the syrup in a vessel outside of the hives, where it is accessible to the bees of all the colonies. Bees are not gifted with the spirit of arbitration and a dispute will arise as to the division of the syrup. Still the worst does not come until it is all nicely stored away, and they return to the feeder but to find it empty; they will lurk around for a time when suddenly you find them pouncing upon some poor weak colony, and before you are aware of it have robbed its members of sustenance.

The Simplicity is an excellent feeder. Some advise setting it on the alighting board but don't you do it, for the reason just mentioned. Put it inside. If your hive has either a gable or raised cover, bore a hole in the honey board and place the feed on that under the cover, or if you use a cushion instead place it under that; we prefer the former plan as you can raise the cover and pour in the feed daily and not disturb the bees. Or if your hive has a flat cover, put on an empty super and place the feeder in that and cover the whole top of the hive with a blanket.

The Atmospheric feeder is more generally used. It is constructed of a block of wood with a 3½ inch hole bored nearly through and this fits over a pint Mason jar, glass tumbler, cup or any vessel of that size, and inverted quickly; it is then placed on the brood combs or honey board tight down on the brood frames and a cushion thrown over it so that it covers the entire top of the hive to retain the heat.

TACOMA, Wash.

The best artificial feed for bees is syrup made from pure granulated sugar. In cooking do not allow it to boil as it is almost sure to burn and then it is spoiled. Merely let it simmer. Some let it cook long enough to candy when a spoonful is dropped in cold water. Then it is beaten or stirred with a spoon until it hardens, when it can be put on the brood-combs in chunks. This plan works very satisfactorily in Eastern Washington.

C. E. Phenicie, of Tacoma, estimates the number of bee-keepers in the State of Washington at about 600, owning 6,500 colonies. We think this estimate far too small, as there are more than half that many in the valleys tributary to North Yakima, and the number is almost doubling each season.

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