

rank in point of size. The plants are hardy and vigorous growers.

PIONEER OR "KING OF THE NORTH."

Of the fifty or sixty varieties upon my grounds, this is one of the very earliest of the larger kinds. There are others of small size that ripen about as early, but one of these "kings" will easily outweigh or outmeasure fifteen or twenty of its diminutive rivals. The specimen thus far has measured something over eight inches. This is larger than I have yet grown them, but experiments now in progress will, perhaps, in another year, give me equal success. The fruit is of a bright red color, of good quality, and promises to prove finely adapted to either market or private use. The plants are both hardy and productive.

NICANOR

Is a well-known and formerly widely-grown little berry, possessing many good qualities, but so inferior in size that it will, no doubt, soon be driven from our gardens by its more favored and larger rivals. Essex Beauty, Crescent Seedling, Matilda Duncan and President Lincoln are other early varieties—some of them possessing merits of unusual prominence. Monarch, Great Prolific, Captain Jack and Sharpless soon follow them, while Dr. Warder, Great American, Kerr's Prolific and Belle grandly bring up the rear somewhat later in the season—revealing at times berries with a measurement of from five to fourteen inches.

And now a few words as to methods for growing this mammoth fruit. Let no one suppose that we, here upon the banks of the Hudson, are the only ones that nature favors so highly. Almost any good, rich soil in this country is adapted to the growing of the strawberry—if not one variety of the berry, then another. Of course poorly drained or sterile soils must be excepted. The largest berries are grown on moderately young plants, such as have been set out 10 or 12 months. For my own plantings I greatly prefer to use plants that have been started in small flower pots—setting them out in August or September, as they give nearly a full crop the next season. Correspondents to whom I have sent them also speak highly of them. If the soil is well enriched, deeply spaded, and then frequently hoed, others will also find that suitable varieties will soon give many a rich feast in grateful return.

The English Sparrow and the Canker Worm.

Extract of a letter from T. W. Chesley to the Annapolis Journal :

Within about ten miles east of Boston the canker worms have made sad havoc among the orchards. After leaving Boston for Fall River, the same distressing sight presented itself for a distance of ten miles at least. The only plan of relief is by all possible means to encourage the increase of small birds.

The municipal authorities of Boston and New York, about a dozen years ago, each imported the little English sparrow. This procedure was adopted to preserve the foliage of the ornamental and shade trees of the public parks of the respective cities. The scheme has worked perfectly, both on the Boston common as in all the public thoroughfares of the city, and also in the great central park of this city, on an area of nine hundred acres. The whole of these numerous public thoroughfares are vocal with bird songs by those little feathered songsters; and substantially, the best of all is, not a leaf of those various forests of ornamental and shade trees is permitted by those sprightly little fellows to be destroyed by the caterpillar or canker worm.

The little bird I am referring to stands the Massachusetts winter nobly. They propagate their species with wonderful rapidity. The "Charleston Heights"—miles from the common—where the original importation was put, is now peopled by them; and a gentleman there told me that only two

years ago the foliage of the majestic elm trees was destroyed by the pest of canker worms, and now the little sparrows protect the trees perfectly.

Those little interesting creatures are as tame as canaries. While roaming at large over the city, hopping on the side walks and through the trees, in Boston, the climate being much like ours, little houses are constructed and fastened to the branches of the trees for winter homes. But, I assure you, they get through the winter without any protection. They are fitted with a strong beak, and are said to be wonderfully acute in detecting where a worm has secreted itself. A gentleman assured me that he has discovered them plucking buds or young blossoms from his pear tree in his garden, and teased his fruit prospects were doomed to destruction. On examination he found that the only buds and blossoms attacked were those which contained a worm, while the buds and blossoms untouched were the perfect ones, and in autumn he had a fine crop of pears, while before the visit of the sparrows his fruit was to a large extent "wormy," as we say in Nova Scotia.

In the New York Central Park the whole area of nine hundred acres is peopled by them, and in a ramble through it one evening recently I could not discover a single tree bearing the marks of the caterpillars or worms. In passing over the city on business errands, I noticed the little fellows hopping about in search of food.

Pruning Fruit Trees.

All that is required ordinarily, in my opinion, is a judicious pruning to modify the form of standard trees. Every fruit tree grown in the open orchard or garden, as a common standard, should be allowed to take its natural form, the whole effort of the pruner going no farther than to remove the weak and crowded branches, those which are filling uselessly the interior of the tree, where their leaves can not be duly exposed to light and sun, or those which interfere with the growth of others. All pruning of large branches of healthy trees should be avoided by examining them every season and taking out superfluous shoots while small. When orchard trees are much pruned they are apt to throw out numerous superfluous suckers from the boughs in the following summer. These should be rubbed off when they first appear, or they may be easily broken off while young and brittle; cutting is liable to increase their number. When not required to renovate the vigor of an enfeebled tree or to regulate its shape—in other words, in the case of a healthy tree which one wishes to retain in a state of the greatest luxuriance, health and vigor—pruning is worse than useless. I caution all to bear in mind that if the leaves and branches are in due proportion to luxuriance and constitutional vigor. The best season for pruning to promote growth, theoretically, is in autumn, soon after the fall of the leaf. Next to this, winter pruning, performed in mild weather, is best, and in large orchards this is the season most convenient. I think pruning should be avoided at that period in spring when the buds are swelling and the sap is in full flow, as the loss of sap by bleeding is very injurious to most trees, and in some brings on a serious canker in the limbs. There are advantages and disadvantages attending all seasons of pruning, but experience has taught me that wounds made in June would heal over freely and rapidly. It is also the most favorable time to judge the shape and balance of the head, and to see at a glance which branches require removal.—D. N. K., in Ohio Farmer.

Fields of Roses.

The roses of Chazipoor, on the river Ganges, are cultivated in enormous fields of hundreds of acres. The delightful odor from these fields can be smelled at seven miles distance on the river. The valuable article of commerce known as "ottar of roses" is made in the following manner: On forty pounds of roses are poured sixty pounds of water, and they are then distilled over a slow fire, and thirty pounds of rose water obtained. This rose water is then poured over forty pounds of fresh roses, and from that is distilled, at most, twenty pounds of rose water; this is then exposed to the cold night air, and in the morning a small quantity of oil is found on the surface. From eighty pounds of roses—about two hundred thousand—at the utmost an ounce and a half of oil is obtained; and even at Chazipoor it costs forty rupees—twenty dollars—an ounce.

Pear and Twig Blight.

A correspondent of the Germantown Telegraph, S. Folsom, thus discusses pear and twig blight;

Myself and one of my neighbors, with the aid of Prof. T. B. Lovell, of the Atica Collegiate Institute, and his magnifying glasses, have brought to light one unmistakable cause of deadly blight in pear trees. It is poison from an insect that borers through the bark and from one-quarter to one-half inch into the wood of the trunk of the tree. The hole made is about the size of a small common pin. As the sap rises and descends the poison discolors the wood a foot or more above and about half as far below. If not checked, this poison will destroy the entire tree, if in the trunk. Slitting the bark with a sharp knife, through the bore and each side of it, so as to connect above and below, is the remedy. And any gnarl or imperfection in the bark on the trunk should thus be slit. I have thus saved trees where the outer bark was utterly dead, and produced new bark thereby. Twigs and branches showing blight must be cut off close. The assertion that the twig blight results from the work of an insect at the base of the twig, we find from careful inspection to be a hasty conclusion, with no insect and no trace of an insect to warrant it. The hole or vacuity at the junction of the twig with the limb is caused by the shrinkage of the path in the twig by drying.

Raspberries.

The fact that raspberries lose their flavor so readily, and carry with so great difficulty, will always prevent their being very cheap or plentiful in the market. This will make it desirable that those in the vicinity of large cities, and much more those in the country, should raise their own. When the right varieties are secured, the culture is not difficult. They will grow well in a light, rich loam, in a clayey soil, or in a sharp sand. They are not quite so impatient of shade as the strawberry, and they do well when trained up to walls, fences and sheds. Many a city lot would produce as many as a large family would need, if the proper care and culture be bestowed. Either the red or the black may be cultivated, or both. The yellow or the white are not considered so hardy as the darker colors. For a fertilizer use barnyard manure and muck, or muck with lime or ashes, or bone-dust or poudrette composted with muck, sods and leaves. Deep plowing or trenching prevents loss from drouth, and is indispensable to the best success. With these precautions, it is believed that there is not a garden in the country in which some variety of raspberries will not thrive.

Requisites of a Family Orchard.

M. B. Bateham writes in the Country Gentleman as follows: In stating what I conceive to be the requisites of a good family orchard, I am guided by actual observation and experience with a family of eight or nine persons, and a goodly share of friendly visitors. Of course we are all habitual fruit eaters from choice as well as conviction, and as apples are more reliable than most other fruits, we need to calculate for a supply of these throughout the season, or from August to May; then, if there are plenty of grapes or peaches, there will be some surplus of apples to be disposed of.

We find that we need three classes of apples to be in condition for use during the whole season. First, not less than two distinct or first-class dessert or eating varieties, always in mellow or ripe condition for table use and for visitors, to send by children to school, and to give to less fortunate neighbors. This will require about a dozen varieties for the season. Second, one or two rich subacid varieties of good size for cooking in various ways. This will take eight varieties.

Prof. Prentiss, of Cornell University, has been estimating the annual crop of seed produced by some of our seed weeds:—Dandelion 2,000; oxeyed daisy 13,000; dock 13,000; burdock 24,000; mayweed 40,000; red poppy 50,000. After reading these figures the only wonder is that these weeds can be kept down at all. Seed may remain in the ground several years, only to become weeds when the ground is stirred. In evidence of this the Professor refers to a tobacco field where the seed had been allowed one year to ripen and fall. For ten years afterwards tobacco plants appeared in that field from this seeding.