

Garden, Orchard and Forest.

Barberry for Hedges.

Some time since a letter of inquiry was forwarded to me by the editor of the *Farmer*, with the request that I answer the queries. Sickens has prevented my answering sooner. The queries are, first:—Where can seed of barberry be obtained? This I cannot answer positively, but I think almost any dealer in tree seeds can furnish them. The advertisements of such should be found in the *Farmer*. Thos. Meehan, of Germantown, Penn., I think keeps them. Second:—How are they propagated? They may be started in nursery rows, and at the age of one or two years be transplanted to the hedge row; or the seed may be drilled in where the hedge is to be grown. In the last case it is best to open a good furrow and scatter the seed well over the bottom of this, so that the row of plants may be some eight or ten inches wide. Cover with fine soil and they will grow. If not thick enough, cut back to the ground during the next fall or winter, and they will thicken up. As to the cost of seed per bushel, I can only say I do not know anything about it.

The same querist also asks for information about the silver thorn. This is *Eleagnus parvifolia* of botanists. This plant does not have thorns proper, but the small twigs become sharp and hard, and increase in numbers each year, and thus in a few years become a formidable barrier to all domestic animals. It is said to have been tried quite extensively at the North, and it has given entire satisfaction as to hardness and other qualities. It is well adapted for ornamental hedges on account of the beauty of both foliage and berries. It seeds quite freely, and at a very early age, so that a few plants will soon furnish all the seed needed to start all the hedge desired. I know of no one who has the seed for sale unless it is the party named above, though perhaps dealers who advertise in the *Farmer* can supply them. It may be said of both the above named plants that they are not large growers, and excepting in good soil, would hardly make such a hedge as a man would want to enclose cattle and horses; but if the soil is rich and moist, they will turn any ordinary stock. They bear pruning well, but of course do not need it as do the honey locust and osage orange, which must be constantly pruned to keep them within reasonable bounds. The barberry and silver thorn, on the other hand, do not incline to grow beyond a fair height for a hedge, and about all the pruning they need is to keep them in proper shape. I incline to think that "Subscriber," should he try either or both of the above, will derive satisfaction as well as profit from the experiment. At any rate, he will gain an experience that will be of value to himself, and, if given to the world, probably of interest to the public.—*Ohio Farmer*.

The Borer.

Were it not for this intolerable, abominable, curse to the apple grower, we would soon have this fruit in great abundance; but under existing circumstances, there is not much danger of an over-stock.

A few days ago we were called upon to look over an orchard of about sixty trees, planted about four years ago, and lately fallen into the hands of the present owner. One single tree in the whole lot was free, while all the others had from two to ten or a dozen borers in them—half the trees past saving, and the balance more or less injured. There was another instance near by where a man from New York had bought a place with about one thousand thrifty young apple trees thereon, in which I doubt if there are one hundred of them free from this pest. He was surprised when we called his attention to it, and now has a man engaged to look after them. But our duty is to call the attention of every one of our readers to their own trees. Cut out all the borers, and then bank clean fresh earth around the trees six inches high; by spring the wounds will have calloused and stand a better chance to recover. By doing it now, you may save many a tree from destruction, for the damage that the borer will do from now until the ground is frozen, is not a little. There seems but one sure remedy against them, and that is to wrap the tree with cloth or paper from under the ground to several inches above; and this should be begun when the tree is first planted. This is against the round-headed borer; the flat-headed one, that works in the trunk and limbs, will never trouble a well-trained tree—that is, with a low

head and no large limbs ever cut off; as it don't attack a sound place, but only spots where the bark has been scorched by the sun, or the dry bark around where a limb has been severed. We will venture to say that whoever follows the plan last suggested, will have no trouble with the borer.—*Rural World*.

Mixing Soil Around Fruit Trees.

In disposing of the soil, which had been dug from the foundation for a new house a few years ago, it had been spread under the adjoining trees to the depth of ten or twelve inches, and at the present time every tree so treated presents an unhealthy appearance, which may gradually, but will most surely, end in premature death. This injudicious practice should be condemned on every hand, so that the ignorant, as well as the careless, may be forewarned of the evil consequence which must eventually ensue. If soil must be so disposed of, it should be as nearly as possible of the same texture and composition as that in which the trees are growing, and then only to a very limited depth, so as not to destroy, even for a short time, that natural porosity of the surface soil which is so largely produced by the roots themselves. In respect to those trees which are not so easily injured by this practice, and which will bear any reasonable amount of soil being laid over their roots, I still think the same rule in respect to the texture and composition should be, as nearly as possible, adhered to, and if placed near the stem, a cavity quite round the tree, and down to the base, should always be left, and of sufficient width to allow a free circulation of air, and also to admit of being cleared of any matter which may, and does, freely accumulate in it. The sloping bank system answers well in some situations and has the advantage of showing more of the trunk, but if the surface of the ground inclines to that particular point, or the soil be very tenacious, or if the ground be not of a thirsty nature, evils may accrue from an accumulation of too much water.—*The Garden*.

The Forests of the World.

The forests of Europe are estimated as being 500,000,000 acres in extent, or about 20 per cent. of the whole area of the continent. In North America it is reckoned that 1,460,000,000 acres are covered with trees, of which 900,000,000 are in British North America. In South America the forests occupy 700,000,000 acres. The total amount for the two continents of the New World and Europe gives 6,600,000,000 geographical miles. The proportion of forest land to the whole area of Europe, as above stated, is computed at 20 per cent.; in America 21 per cent. Supposing, therefore, 20 per cent. to be the proportion in Asia, Africa and Australia, the grand total of the forests of the world would cover a space of over 7,734,000 geographical miles. The areas of State forests and woodlands are estimated at the following figures in the following European countries: Prussia, 6,200,000 acres; Bavaria, 3,294,000 acres; France, 2,700,000 acres; Austria, 2,230,000 acres; Hanover, 900,000 acres; Wurtemberg, 469,007 acres; Saxony, 394,000 acres; England, 112,376 acres.

The range in the height of trees varies from the miniature alpine willows of a few inches in height to the stupendous *Wellingtonia*, which grows to the height of 350 feet, although it is stated that one of the eucalypti often reaches a height of 450 feet in Victoria. In Slavonia, a tree called the sapin attains a height of 275 feet, and the umbrella pines of Italy 200 feet. The California big tree is said to girth 96 feet.

The destruction of woods and forests, however, is very enormous, and in the majority of instances no attempts are being made for their reproduction. In South Africa, we are told, countless numbers of beautiful forest trees are destroyed and laid waste annually. In New Zealand the 30 per cent. of forests existing in 1830 had sunk to 28 in 1867, and to 18 in 1873, which rate of reduction, if continued, would result in the total destruction of New Zealand forests by 1889. In America, in the United States especially, the consumption of timber is enormous, and although public attention has been called to the matter, and the United States statute of March, 1875, imposes a fine of \$500 or a year's imprisonment for wanton injury or destruction of trees, and also a fine of \$200 or six month's imprisonment for allowing cattle to injure trees "on national grounds," the yearly consumption and improvident use of timber is almost incredible.—*Land and Water*.

Larch Bark for Protecting Trees.

I have used Larch bark extensively and successfully in protecting newly-planted fruit and forest trees in open spaces from sheep as well as from "ground game." The extra casing of bark will also protect the trees from cattle, but these commit greater injury by rubbing than by nibbling. Any kind of bark will do provided it is dead—that is, that it has been removed from the trees for a few months. Rabbits will not nibble dead trees nor juiceless bark. I was led to use of loose larch as a protector to trees by observing that while the bark of freshly planted trees were devoured by the vermin, the stakes which supported the said trees were never touched. I therefore enveloped the trees with loose Larch bark, and was gratified to find that the rabbits were completely baffled and the stem perfectly safe. More than twenty years' experience has convinced me that this is a cheap and perfect remedy against rabbits and sheep injuring the stem of trees. If those who cannot obtain bark by other means will go to any large saw-yard they will find loads of outer strips thrown away and which the owner of the yard will be glad to have cleared away for next to nothing. These strips carefully tied round the stems of trees will afford them perfect protection against the inveterate, annoying, and injurious nibblings of rabbits and larger animals.—*London Journal of Horticulture*.

How Do You Make Cider Wine?

This question is asked by a correspondent of the *Village Record*; and as it is unanswered we will undertake the task. The cider for this purpose should not be made until December, when it should be barreled and placed in a vault or cool cellar, and left there until February or early in March, when it should be bottled, using champagne bottles, well corked and wired; the cork should be driven down to an eighth of an inch of the mouth, so that the wire can grasp it. Use good-sized copper wire, which will require only once passing over the cork, provided it is well-secured around the neck of the bottle. Then return the bottled cider to the cellar, laying the bottles on their sides, and it will keep for years. Be sure that the bottles are thoroughly clean, which should be attended to just before the bottling begins. Some persons—and it is the method of the North Jersey "champagne" cider makers—filter the cider before putting away in barrels. It is true this removes all sediment, but we cannot perceive that it adds to the flavor or keeping qualities of the cider.—*Germantown Telegraph*.

The Useful Work of Insects.

Insects are useful in destroying dead vegetable substances, which are even more pernicious to man than animals in the same condition, and not only the soft and succulent portions, but even the solid wood is destroyed by them. In the immense forests of the tropics the ground would be covered, and new shoots be choked up by the ruins of trees which had fallen by accident or age, and which it would require ages to disperse without the aid of insects. But no sooner is a tree fallen than one tribe of animals cut its bark to pieces, another bores holes in it in all directions, so that the moisture from dew or rain may stand, decompose and soften. Others come in to eat off the parts that are softened, and so on till it is entirely broken up and scattered, and this is done with such expedition that they will, in a few weeks, destroy and carry away the trunk of large trees without leaving a particle behind, and in places where, two or three years before, there was a populous town, if the inhabitants, as is frequently the case, have chosen to abandon it, there will be a very thick wood, and not a vestige of post to be seen.

"Hide-Bound" Trees.

Trees that have long stems exposed to hot suns or drying winds, become what gardeners call "hide-bound." That is, the old bark becomes indurated—cannot expand, and the tree suffers much in consequence. Such an evil is usually indicated by gray lichens which feed on the decaying bark. In these cases a washing of weak lye or of lime water is very useful; indeed, where the bark is healthy, it is beneficial thus to wash the trees, as many eggs of insects are thereby destroyed. We would, however, again refer to linseed oil as a wash, as far more effective for insects, and would, perhaps, do as well for moss and lichen. After all, these seldom come when trees are well cultivated. It is neglect makes poor growth, and poor growth, lichens,—*Gardener's Monthly*.

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