

or ground, about a foot out from the tree all around. In nine cases out of ten, the tree can then be pulled over, and with a few more blows of the axe you can separate it entirely from the ground. You will then have your tree with a bunch of root fibres and wet earth about as large as a half bushel basket. Now go to the other end of the tree, and no matter how cruel it seems, cut off its head, say 10 or 12 feet from the roots. Never mind if people say it looks like a bean pole, in two or three years its head will come out all right. The roots, having been cut off, it should not be left with branches; besides this, with branches the tree is wracked by the wind, and the new root fibres are liable to be torn off.

If the soil is sandy or of gravel where it is to be put, dig a hole for the tree as large as a half-barrel or half-hogshead, and bring enough rich earth from the gutter or the meadows to nearly fill the hole, then put some of the better earth at the bottom, and jaunce the tree up and down until it has fitted itself to a place; spread out the small fibres or roots and pack the earth closely around them; be careful and not jam off the tender roots with your boot or with sticks. Fill the earth in slowly, and carefully stamp or tamp it down to the top. Do not let the roots get too dry, and be careful not to pour on too much water. The native earth should not be washed off from the root; it is a good plan simply to sprinkle the root with water, instead of pouring it on from a pail.

With these precautions your tree will be pretty apt to live. Turn the turf upside down around the trunk, for mulching. The trees at the north end bridge of the city I brought in from the western part of West Springfield, in 1881, and they are planted in sand or gravel filling, but each tree had its own small load of earth at its roots, taken up from the adjoining meadow.

The effect of locality is well illustrated with this year's planting. The trees on the north side of this street were taken from the same place, and planted at the same time, with the same care; but the trees with the southern exposure have outstripped them in growth. The north end bridge elms were part of 105 that we put out the first year. In my diary of 1882, when I brought in 150, I noted that all but five of the previous planting were alive. Several, however, afterwards died, and this leads me to say that furnace cinders should not be dumped at the foot of shade trees. Some of the West street elms were killed that way; and the large elm near the Canoe Clubhouse is dying from the same cause. The elms on Tubb's Hill, in Springfield, some 75 in number, are also planted in sand and gravel filling; but each tree was supplied with good earth at the root, and nearly every one lived. I think I put nearly every one

of these into the ground with my own hands. I mention this only to show that ten minute's care at the right time may save the tree, and may stand for a hundred years of shade.

One word as to the place of planting: Do not neglect the streets with poor houses; if they remain poor they will need the shade all the more. I do not know of a more depressing sight than a poor, sun-scorched tenement in a large town; a cabin in the shade of the forest may, in comparison, be a palace, and to a great many more attractive. It is the surroundings and conditions that make the distinction.

Springfield is fortunate in her shade trees, and the grandest of all her elms. Mr. Phillipe, in his excellent article, quotes Colonel Foote as authority for the statement that nowhere in Europe do elms flourish and attain such large size as in Springfield. They are here for your inspection, and the place where the tree falls; there it does not prevaricate.

In my own town there was formerly the elm of which Oliver Wendell Holmes speaks in his "Autocrat." This tree measures 27 feet around its trunk at the smallest part. On Elm street, in this city, you can see today an elm that one foot from the ground measures 33 feet around; higher up it comes to be 20 feet, and next to the branches is 32 feet around. There is a large elm on the grounds of D.B. Wesson which it is said measures 26 feet, 5 feet from the ground. There is another magnificent elm on South Main street; in fact you will encounter there magnificent trees in all directions. It is said that the elms on the main street corners of Court square were good-sized trees at the time of the Revolution.

The Druids never loved the oaks better than the dwellers of this valley have loved their elms. They bordered the meadows when the first settler came, they stood by his rude fort, and they stand today by his factory. Strong, self-poised, defiant of storm and responsive to sunshine, they represent the people they have sheltered. On some of these massive trees now living hung the sign of King George. From flint-lock to Gatling gun, from stage coach to electric cars, they have been the silent bystanders and spectators of human progress.

Another shade tree, which attains in our soil enormous size, is the Buttonwood, of the Plane tree family. Mr. Emerson speaks of a tree in Rhode Island which in 1839, one foot from the ground, measured 24 feet around. The second in size, according to the same authority, stood in a highway in West Springfield, and measured 16 feet, 6 inches from the ground. These massive trees spring out at odd places along our roads and streams. I used to suppose that they were common country trees, without pedigree or family history, that

had fallen into the procession of trees and vegetation, which Holmes says eventually take up their line of march toward the city, to see what people have been doing in their old haunts. I have found, however, that this tree with a common name has a history to be proud of. Cimon planted them in Athens. Pliny admired them, and says they were brought across the Ionian sea to shade the tomb of Diomedes. No tree was so great a favorite with the Romans; they planted them in their public ways and nourished them with wine. It is said that Hortensius arranged to give Cicero a continuance in court in order that he might go and water with wine his trees at Tusculanum. This tree seems to belong to a warmer climate, or else has not got thoroughly acclimated, for it often gets nipped with the frost, and further set back in its usual tardy leaving out.

I have wondered how it happened that locust trees came to have been planted as shade trees in so many door yards, apparently some thirty or forty years ago. I find, however, in reading Emerson's work on trees in Massachusetts, that these trees had been recommended as having many uses and as being valuable and ornamental. I presume people took this advice and planted them. They have, to a considerable extent, spread out in localities, but the beauty and value have, I think, not been realized.

Then comes the maple. For general purposes, including shape, perhaps it rivals all, and none would be missed from Massachusetts more. It attains to large size in this locality, and it is said, on our hills takes the place of the oak. With the autumn foliage upon them these trees are beautiful beyond description. We have in Massachusetts five species, the Red, the White, the Rock, the Striped and the Mountain. There is another tree deserving more attention as a shade tree than it has received, and that is the beech. This tree casts a dense shade, is clean, has few enemies, and it is said is never struck by lightning. They grow abundantly on our mountains, and can easily be planted in our parks. The horse chestnut has also come to be notably a shade tree, and one of the finest specimens in the state is to be found near the courthouse. When it flowers in the spring, it reminds you of a grand public Christmas tree. The willow family is still represented among our shade trees to some extent, in its own proper species and in the common poplar.

I have confined myself to these few statements as to shade trees. A full list of our trees is published in the report of the City Park Commissioners. I wish someone would publish a hand-book with plates for the easy identification of trees. Many of them are readily distinguished; as, for instance, anyone who can count can distinguish the white pine, with its bunch of five needles; the pitch pine, with its bunch of three, and the red pine, with its bunch of two.