

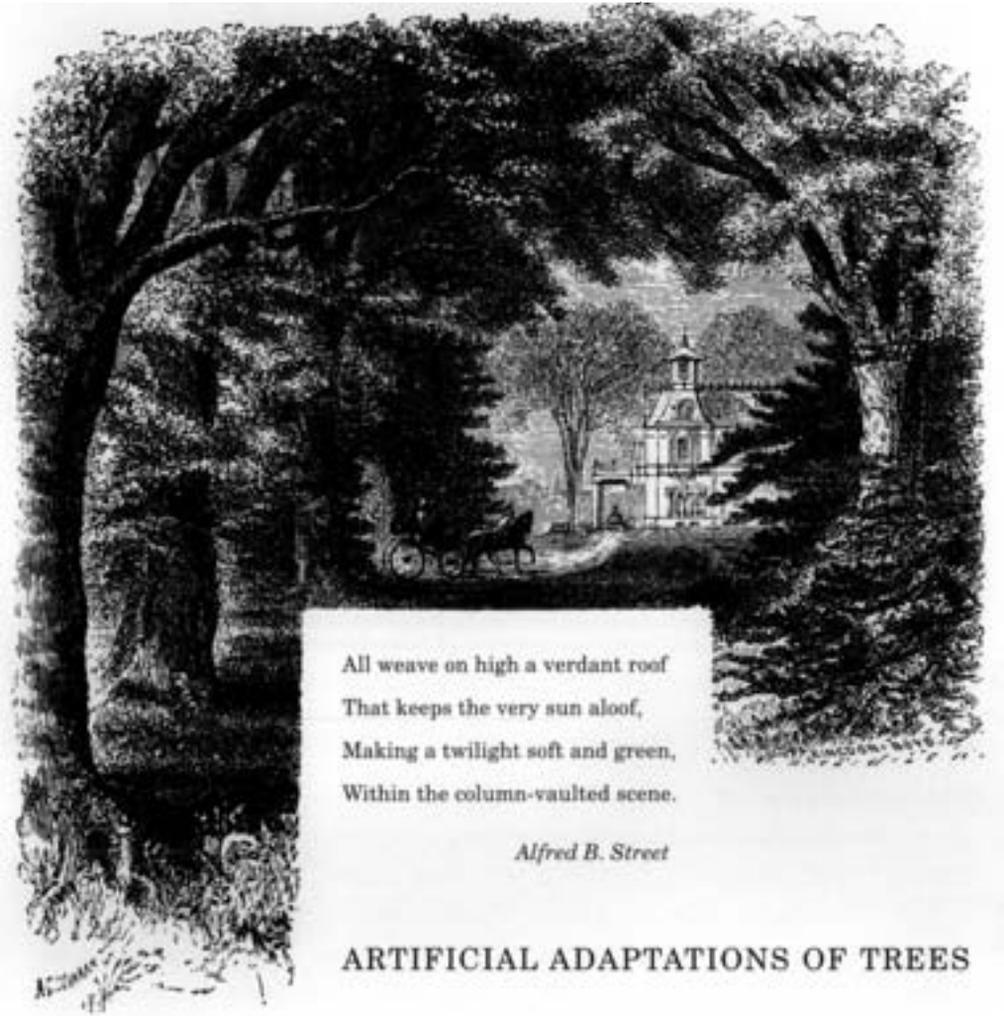
# Verdant Arches and Bowers: Artificial Adaptations of Trees

*Frank J. Scott*

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The history of garden art is a history of ever-diminishing garden size. For centuries garden treatises have helped landowners adapt their ambitions to the realities of constricted places. Treatise writer and landscape designer Frank Jesup Scott (1828–1919) is best known as an influential promoter of post-Civil War suburban life and the now-requisite lawn. His book *The Art of Beautifying Suburban Home Grounds of Small Extent* was published in 1870, during the economic recovery following the war when more and more Americans aspired to live in what Scott termed “half-country, half-town,” “the happy medium and the realizable ideal for the great majority of well-to-do Americans.”

Back then, well before gardeners clamored for low-maintenance plantings, yardwork was serious, time-consuming business. As a student of Andrew Jackson Downing, Scott no doubt shared Downing’s belief that garden beauty reflects owner virtue. But Scott’s proposals in the section excerpted here appeal to those of us who love trees without concern for morality. A recommendation to plant more trees is convincing in itself, and the care required to train them into arches and bowers a small price to pay. As Scott put it, “Such arbors or arches can be made much more quickly with carpentry and lovely vines, but the permanent and more unusual structures made with living trees must nevertheless be more interesting.”



All weave on high a verdant roof  
That keeps the very sun aloof,  
Making a twilight soft and green,  
Within the column-vaulted scene.

*Alfred B. Street*

## ARTIFICIAL ADAPTATIONS OF TREES

**A**LL modes of growing trees for decorative or business purposes may be considered artificial, but what is here meant by artificial adaptations are those less common forms of culture, by which shrubs and trees are brought by skill, or persistent manipulation, into unusual forms for special purposes. Hedges, screens, verdant arches, arbors, dwarfed trees, and all sorts of topiary work, are examples of such arts. It is sometimes objected to these formally cut trees, that they are unnatural, and therefore inadmissible in good decorative gardening. But houses, fences, and walks are not natural productions, nor are lawns or flower-beds. All our home environments are artificial, and it is absurd to try to make them seem otherwise. The objection arises from a common misunderstanding that all decorative gardening is included in, and subject to the rules of landscape-gardening: an unfortunate error. The word landscape conveys an idea of breadth and extent of view, so that landscape-gardening means gardening on a great scale, in imitation of

natural scenery. All the effects that can be produced artificially with small trees, by topiary arts, may seem puerile as parts of a landscape; but in the dimensions of a small lot, where each feature of the place needs to be made as full of interest as possible, no such idea is conveyed. On the contrary, whatever little arts will render single sylvan objects more curious and attractive, or more useful for special purposes, may with propriety be availed of. It is as absurd to apply all the rules of grand landscape-gardening to small places, as to imitate, in ordinary suburban dwellings the models of palaces. The only limit to the use of topiary work of the character we are about to treat of is, that whatever is done shall be subsidiary to a general and harmonious plan of embellishment, and *that the forms employed shall have some useful significance.*

\* \* \* \* \*



FIG. 31.

There is no limit to the charming variety of effects that can be produced by training and pruning trees and large shrubs, both evergreen and deciduous, into fanciful forms for gateway and garden arches, verdant pavilions, and bowers. As evergreens are most constantly beautiful for such purposes, we will first call attention to a few forms in which they may be used.

The hemlock can be treated as illustrated by figures 31, 32, and 33. The first represents two hemlocks which have been planted two feet away from and on each side of an ordinary gateway. After five or six years' growth they may be high enough to begin work upon. A crotched stick about two feet shorter than the distance of the trees apart, is stretched from one to another, from six to seven feet from the ground, and fixed there to keep the tops apart up to that point. Above the stick, the tops (supposing that they are tall enough to admit of it) are to be bent towards each other until they join, then twisted together, and tied so that they cannot untwist. To do this so as to form a graceful arch, the trees must be about eleven or twelve feet high. After they are firmly intertwined at the top, which is usually in about two years' growth, the clipping of the sides and tops can be going on to bring the arch to a form like that of figure 32, or to any similar design the proprietor may desire. An arch like the latter figure may be brought to considerable perfection in the course of ten years.



FIG. 32.

Figure 33 shows the probable appearance that a hemlock archway would present in twenty years after planting, supposing the trees were allowed to develop more naturally after their artificial character was well established. Such arches increase in quaint beauty as they grow old, and after the first ten years will need but little care.

Figure 34 is intended to show another effect, which may be produced with the same size trees, by joining and twisting together two side branches to form the arch, leaving the main stems to form two spiry sides, and trimming to produce this form.



FIG. 33

Another mode that, if well executed, would produce a curious effect, is to unite the main stems as in the first mode, but instead of twisting them to grow vertically over the middle of the gate, the twist should be made horizontally, so that the tops would project sideways, as shown farther on for elm-tree arches [figure 40]. This in time would develop into a wide crescent, inverted over the arch, or it might be likened to a pair of huge horns guarding the arch. The variety of novel forms that such trees can be made to assume after ten or twelve years' growth will surprise most persons. The same kind of arches on a smaller scale can be made with the arborvitæ, but the branches are not so pliable.

It may be used to advantage for narrower and lower arches.

For arbors or bowers the hemlock is equally well adapted. We would suggest as the simplest form to begin with, that four hemlocks be planted at the intersection of two walks, say five or six feet apart. By cutting back the side branches to within one foot of the trunk, the growth at the tops will be increased so that in five or six years they may be tall enough to allow the opposite diagonal corners to be twisted together. If the trees are all thrifty, the twist will become fixed in two years. The fragrant and graceful foliage of the hemlock can thus be made to embower retired seats, or make quaint openings for diverging paths. Such arbors or arches can be made much more quickly with carpentry and lovely vines, but the permanent and more unusual structures made with living trees must nevertheless be more interesting.



FIG 34.

The hemlock may be used to make artificial pavilions of a still larger kind if trained through a period of ten or fifteen years. Suppose six trees to be planted at the corners of a hexagon ten or twelve feet in diameter. Let them feather naturally to the ground on the outside of the group, and trim to within one or two feet of the trunks on the inside. When twelve feet high, pass a rope around the circle, on a level, two or three feet below their tops, so as to draw them towards the centre of the circle as far as the main stems may be safely bent, which will probably be about three feet inside of the perpendicular. If the circle is twelve feet in diameter, this will still leave six feet unenclosed at the top. The rope is to be left around them until the trees have grown five to six feet higher, when another binding will bring their tops together, and if they are long enough they may be twisted together.

Figure 35 is a section of the stems alone, to illustrate the general form intended. When the six trees are together at the centre they should be made to grow like one, and the branches that grow from the upper sides of the curved stems must be cut back to prevent them from becoming leaders. Figure 36 shows one development of this mode of training; the sides and top having been trimmed in mosque-dome form, the curve of the living frame of the pavilion being well adapted to produce it. It will require from twelve to fifteen years to perfect such a pavilion, but the group will be pretty, and interesting at every stage of its growth. In this, as in most other things in life, it is well to remember Shakespeare's lines —

What's won is done; — *joy's soul lies in the doing.*

A pretty variation of the above plan, for larger verdant pavilions, may be created by simply bending the tree-tops towards the centre in the manner above described, but not close together, leaving a circular opening six feet wide over the centre, in the manner of a dome sky-light.

The fir trees, though fine for lofty screens or hedges, have more rigid wood, and do not bear so much bending; still very beautiful results of a similar kind may be produced with the Norway spruce, which is the best of the firs for this purpose. It bears cutting quite as well as the hemlock.

The *Cypressus Lawsoniana* [*Chamaecyparis lawsoniana*] which combines a rapid growth, and the freedom of the hemlock with arborvitæ-like foliage, will be an admirable tree for large works of this kind, if it continues to prove hardy.

The pines are mostly disposed to drop their lower limbs as they increase in height, and this peculiarity may be availed of in producing other forms of growth. If, for instance, it is desired to make an evergreen umbrage in which to take tea out of doors

in summer, it may be provided by planting four white pines, say twelve feet apart each way, and when they are from eight to ten feet high, cutting their leaders out so as to leave a tier of branches as nearly as possible at the same height on the four trees.

The following year see to it that none of these upper branches turn up to make leaders, and if necessary tie them down to a horizontal direction. By attending to this for two years the top tier of shoots will make a horizontal growth, which will meet in a few years overhead, and form a table-like top of foliage. But to insure this effect, the tree must be watched for some years to

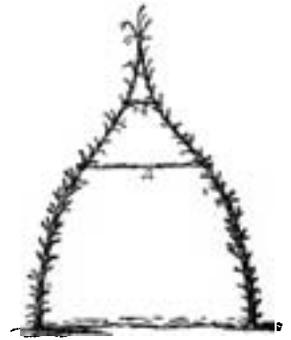


FIG. 35.



FIG. 36.

prevent any strong shoots from taking an upward lead, and thus draw the sap away from the horizontal branches.

After these have met overhead, and form a sufficient shade, the part above may be allowed to grow as it will. The check and change in the growth of the trees by such manipulation, carried on for several years, insures a novel and picturesque form for the group that will be permanent. As the white pine attains great size at maturity, it is not well to attempt such an arbor on quite small grounds.

Deciduous trees being more subject to insects on their foliage, are less desirable than evergreens for these uses, but they spread at the top more rapidly, can be more quickly grown to the required forms, and are covered at certain seasons with beautiful and fragrant blossoms; so that in *variety* of attractions some of them are unequalled by any evergreens. The latter wear throughout the year the beauty of constant cheerfulness, while the former, with the changing seasons, are alternately barren of graces, or bending with foliage and glowing with blossoms.



FIG. 37.

For archways there are no finer deciduous trees than the English hawthorns and the double flowering scarlet thorn, *Cratægus coccinea flore plena* [*C. pedicellata*]. They can be planted at the sides of footpath gates, in the same manner as recommended for the hemlock, and it will only be necessary to trim them on the inside, so as to keep the opening unencumbered; as the hawthorns bloom best on their extended garland-like branches. But they should be trimmed enough to prevent any decidedly straggling outline, to show that they are intended as artificial adaptations for a purpose. Figure 37 shows a suitable form for a hawthorn arch.

For bowers, or umbrageous groups surrounded by open sunny ground, the same form suggested for hemlock and pines is adapted to the hawthorns; viz., planting in a square or circle so that the interior can be used for a cool summer resort for smoking or reading, a place to take tea, or a children's playhouse. A dense canopy of leaves forms the coolest of shades in the hot hours of summer days. To form such a canopy with hawthorns will require about ten years, and may be made by planting six trees in a hexagonal form. All our readers may not remember that if they make a circle of any radius, that radius applied from point to point on the circle will mark the six points of a hexagon.

The following varieties of hawthorn are recommended for five of these places, viz.: the common white, *Cratægus oxyacantha* [*C. laevigata*], the pink flowered, *C. o. rosea*, the dark red, *C. o. punicea*, the double red, *C. o. punicea flore plena*, the double white, *C. o. multiplex*, and for the sixth the double scarlet thorn,

*C. coccinea flore plena*. These will in time make a bower of exquisite beauty in the time of bloom, and of such full and glossy foliage that it will have great beauty during all the leafy season. After such bowers are well thickened overhead by the annual cutting back of the rankest upright growth, they are interesting objects even in winter, by the masses of snow borne on their flat tops, and the contrast presented between the deep shadows under them, and the brightness of the snow around.

The hawthorns are all bushy when young, and their development into overarching trees will be somewhat slower than that of the following deciduous trees.

The sassafras is eminently adapted to form a useful bower of the kind above described, as it naturally assumes a parasol-like top, grows rapidly, and dispenses with its bottom limbs quickly. Being disposed to form crooked stems, some care must be used in choosing straight-bodied thrifty nursery trees, and protecting the trunks until they are large enough not to need it. Six thrifty trees will grow into a perfect canopy, of the size suggested, within five years, if their central stems are cut back, and kept to a height of about eight feet.



FIG. 38.

For the next five years all the upright growth at their tops should be annually cut back, so that the trees will not exceed twelve feet in height. Afterwards they may be allowed to grow naturally; but their greatest beauty will not be attained in less than fifteen or twenty years. Figure 38 shows the appearance they should make in ten or twelve years after planting.

Next to the sassafras, probably the judas or redbud trees, *Cercis canadensis* and *C. siliquastrum*, form most naturally into this kind of flat-roofed bower. The White-flowered dogwood, *Cornus florida*, is also adapted to the same use. Both spread lower than the sassafras, but do not grow so rapidly when young. The moose-wood or striped-barked maple [*Acer pensylvanicum*], on the other hand, attains the height required in a single season, and its green and yellow-striped bark is ornamental. The branches, after the trunk has attained the height of ten or fifteen feet, radiate naturally to form a flat-arched head, and grow much slower than the first vigorous growth of the stem would lead one to suppose. The foliage is large and coarse, but the form of the tree is suited to the purpose under consideration. Its large racemes of winged seeds, of a pinkish color, are very showy in August. The paper mulberry is also a valuable tree for such uses, and attains the required size and density of head in less time than any of the others. The foliage is unusually abundant and of a dark green color.

Perhaps the most beautiful of all small trees for such purposes is the weeping Japan sophora [now *Styphnolobium japonicum*]. It is grafted from seven to ten feet high on other stocks, and for many years its growth is slow; but if one will have the patience to wait, a more charming and curious bower can be made with a circle of sophoras than of any tree we know of. . . .

We have named only a few of the trees which may be made use of for growing these artificial bowers. For very small grounds there are many arboreous shrubs which may be used to produce similar effects on the inside, and appear as naturally grown groups on the outside. . . .

Elms may be used with good effect for arches of a larger growth than those already suggested. The adjoining sketch, figure 39, will illustrate one mode of procedure, where there is room for large trees. Two common weeping elms are to be chosen, each having two diverging branches at the height of six to eight feet from the ground, and to be so planted that the extension of these branches will be parallel with the fence.



FIG. 39.

For a foot-walk gate-way, plant them about two feet back from the fence-line, and the same distance, or less, from the walk. After the trees have grown so that the branches towards the gate are long enough to be connected, as shown in figure 39, and upwards of half an inch in diameter, they may be brought together and twisted round and round each other vertically, and tied together so that they cannot untwist; or they may be grafted together as shown in the sketch above. The twist will, however, be the strongest and simplest mode.

The branches that proceed from the twisted ones below the union, must be kept cut back to within two or three feet, so as to encourage the strongest growth in the part above the twist. The next spring, if these united branches

have done well, the outer branches of both trees may be cut off at *a, a*, and grafted with scions of the Scamston elm [a weeping form]. If the grafts take, and the growth and trimming of all parts are properly attended to, the lower growth forming the gateway arch should be all Scamston elm, crowned over the centre with a loftier common elm, presenting an appearance in the course of ten years something like the accompanying engraving.

The Scamston elm grows with great vigor in a horizontal and downward direction only, and its long annual shoots, and dark glossy leaves overlap each other so closely that an arch cut in one side has the



FIG. 40.

appearance of being cut through a mound of solid verdure. Their tops are flatly rounded like unfinished hay-stacks, and the common elm emerging from the centre (as shown in the engraving), bending its long arms over the former with a freer growth, might, we think, present a combination of grotesque grace less formal in expression than our illustration.



FIG. 41.

A broad flat-topped arch of a similar character may be made by grafting all four of the branches with the Scamston elm at *a, a*, figure 39, and the points opposite. This may be perfected more quickly.

For an archway over a carriage entrance two common elms may be planted by the sides of the gateway, and when their side branches are long enough, may be twisted round and round each other, and tied together, and the other parts of the tree trimmed to develop the best growth of the branches depended on to form the arch. Figure 41 illustrates the appearance of the trees without their leaves a year or two after the twist has been made.

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