

portions of the entire street. While as wide a road reservation as possible is generally desirable, it is not good policy from either an aesthetic or economic standpoint to construct more than a certain proportion of the street for traffic purposes, but obviously this will depend upon whether it is a business or a residential street. Too frequently in narrowing the boulevard the aesthetic features of a street have been sacrificed for its utility. Just as the relationship of the roadbed, sidewalk and boulevard should be equalized, so should the disposition of the public utilities, existing or projected, be carefully planned so that the finished street shall be complete and in harmony with its component parts. The lack of judgment and foresight is seen in our neighboring cities, where matured trees have been wantonly cut down to make room for curbs, and also where in cutting sewer trenches the larger roots of the trees have been cut through, practically giving the death-blow to the tree. While such unfortunate instances are not always avoidable, regrettedly they are more in evidence than might be with careful and scientific planning of the entire street and its component parts.

In strictly business streets, or in streets where the boulevards are not sufficiently wide, the planting of shade trees is not to be commended. It is a question of trees versus traffic—one must make way for the other or both will suffer. Hence, unless for purely temporary effect, it is not a wise policy to plant trees in spaces more urgently required for roadway or sidewalk.

It is the most common of errors to provide trees with too narrow a planting strip for full development. Besides, the effect being crude or incomplete at maturity, the trees tend to force out curbs and undermine walks. The width of the parking strip will be somewhat affected by the species of the tree, but, generally speaking, a minimum width of six feet is to be recommended. On narrower spaces it would be preferable to substitute evergreen shrubs for shade trees. A factor which sadly militates against any street beautifying scheme is the presence of pole lines. Indeed, in most localities it is, or becomes, a question of pole system or tree system, as both cannot exist together harmoniously, the merciless lopping of branches and the stumping of beautiful trees interfering with wires being within common knowledge. This matter might be better controlled by limiting the height of the lowest wires above the ground to, say, 25 feet, or, better still, by enforcing the use of underground conduits.

Advantages of Tree-planting and Boulevards.—Commercially good streets regularly and systematically lined with beautiful trees are a paying investment, tending to increase the value of property abutting thereon. They are the index of a city's character and well-being, and attract the attention of the casual visitor or the prospective investor. Who that has visited Portland, Ore., is not favorably and delightfully impressed by the restful and refreshing atmosphere of its tree-lined and rose-girt residential thoroughfares?

Physically, trees have a beneficent effect on the atmosphere. In the heat of summer they serve the double purpose of cooling the air with the evaporation from their foliage and of affording protection from the sun's rays. In affording protection from the glare of streets and in tending to diminish the nuisances arising from noise and dust, trees add materially to the comfort of residents. The restfulness to the senses which their verdure, form and proportion produces is also a healthful influence. In short, shade trees add to the beauty, health, comfort, and charm particularly of residential districts and lend an air of dignity and repose to the thoroughfares therein. Socially, tree-planting and boulevarding foster civic welfare and further "community efficiency."

The efforts and results are inspiring and contagious—property owners copying examples become imbued with the idea of beautifying the streets in which they live, move and have a good deal of their being—until the entire community has become affected and enthused. Thus is the sense of civic righteousness increased, the public taste elevated, beautiful cities developed and good citizenship produced.

Disadvantages of Trees.—That shade trees have their drawbacks and disadvantages must be admitted. Especially in rural districts they keep the roads damp, and frequently they do not admit of a free circulation of air and wind. The constant dripping of rain from their leaves has also deteriorating effects on macadam roads. That shade trees interfere with traffic is not a valid argument against their adoption, but invariably a result of injudicious planting or inefficient maintenance. Reference has already been made to the destructive effects of tree roots on curbs, sidewalk and pavements, and mention might also be made of instances where sewers have been rendered useless, but most of the above drawbacks could be avoided by foresight in the designing and planting of the trees.

Kinds of Trees and Characteristics of Each.—Although there is such a large variety of forest trees, comparatively few of them are suited to or adaptable for street planting, and altogether it is somewhat difficult to find a tree possessing all the desirable qualities for street use. Generally speaking, trees should be selected particularly with regard to locality, climate, quantity and quality of soil, extent of space and special environment. Hence shade trees suited or appropriate for one locality, or even for one street, might not be equally suited or appropriate for the neighboring locality or street.

Of the above requirements the nature and extent of the soil are of great importance. The most suitable soil is one which contains neither too much clay nor too much sand, but a proper proportion of both. A hole about three feet deep, with an area of not less than a square yard, is desirable to produce the best results, but obviously the depth and area of the hole will depend greatly on the size and nature of the tree. In any event it is important that the young tree should have ample room in which to properly develop. For the very best cultivation the use of prepared soil is recommended. The following are the general essential qualifications of a good street tree: It must be hardy and not adversely affected by extremes of temperature; it must be able to withstand spells of drought, the dust of rural districts, and the smoke and soot, etc., of cities. The hardier the tree, the less susceptible it will be to the insidious attacks of insects and borers. It should have such recuperative powers as to quickly recover from malicious or accidental injury. The best tree should have a straight, clean stem, with shady foliage and a compact root system. To fulfil its chief function it should be graceful in full leaf or when bare in winter, namely, the length of leaf period should be as long as obtainable, the finest trees being those which leaf early in spring and provide shade and beauty well into the fall. A too rapidly growing tree, being usually soft and brittle and short lived, is not always desirable. A slow-growing tree, having better staying qualities and being less liable to be broken by the wind, is to be preferred where the planting scheme is to be of a permanent nature. A good tree should not branch too low—8 to 10 feet from the ground is desirable in the interests of traffic. The foliage of a good tree should be attractive, but not too dense to prevent a free passage of air and sunlight.