

Connecticut
Society of Civil Engineers



Papers and Transactions for 1903

AND

Proceedings

OF THE

Twentieth Annual Meeting

AT

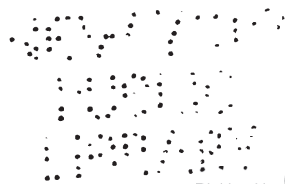
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STREET TREE QUESTION.

REPORT OF THE SPECIAL COMMITTEE APPOINTED BY THE HARTFORD FLORIST CLUB.*

HARTFORD, CONN., February 24, 1903.

To the President and the Members of the Hartford Florist Club:

GENTLEMEN:—Your committee appointed to investigate and report on the existing conditions of the street trees in our city, and if not found satisfactory to offer suggestions for additional treatment, respectfully report as follows:

FIRST—THE TREE AND ITS RELATION TO CITY STREETS, AND ITS VALUE AND REQUIREMENTS.

Beautiful cities without trees are impossible. While the trees in their native forests receive no care from human hands, yet in the environments of a city they must either have human care or become sickly and, long before their time, die. Under such unnatural conditions they must have care to succeed, and care requires labor, and labor costs money. Nothing can be placed along the side of a street, not even a hitching post, but requires care, and ever so much more is that care demanded for a living tree.

Hartford is to-day one of the foremost cities in its development of a useful and extensive park system, and its many tree-arched and shaded trees and avenues entitle it to the name which it is receiving throughout the country of "The beautiful city." We have in our city avenues and streets that are made more than attractive through the graceful arches of elms, like Washington street; yet in that very street, in the aristocratic part of the city, lined with beautiful residences, we find trees suffering under conditions which should not exist, and would

*Published by authority of the Committee of the "Hartford Florist Club" on the Street Tree Question. Three members of this committee, Theodore Wirth, Chairman; George A. Parker, and J. Wesson Phelps, are members of our Society.

be impossible under proper management. In some places there is good management, but next door there may be mismanagement and downright neglect and carelessness. Such undesirable conditions will always exist as long as street trees, although standing within the limit of the highway, are considered and treated as the property of the owners of the adjoining grounds. The property owner looks upon the street trees principally in their relation to his own house and grounds and loses sight of their importance as an ornament to the street.

That municipal ownership alone can remedy such conditions is obvious, and the more the value of street trees, as being beneficial and helpful to the general public and ornamental and useful to the community at large, becomes recognized, the more will the public become convinced that city authorities should control the shade-giving street trees and that they are as essential to the welfare and attractiveness of the city as the roadways and sidewalks are important to its traffic and safety.

The long-prevailing idea that trees will not grow in cities, and that they are an obstruction to traffic and to some extent a nuisance, is fast losing ground, and the new cities will know little of treeless thoroughfares. Even more than that, older cities will not shrink from cost or labor to plant and make trees grow. Until recent times possibility of such a feature was not dreamed of, and barren, monotonous residential streets, and even business streets, will become more attractive through the verdure of their branching trees and more habitable under their shade-giving foliage. Such is the progress of time.

It is, however, wrong to assume that the idea of planting and maintaining trees along highways is only of recent date. On the contrary, there is evidence all over the country to show that the progressive, wideawake and nature-loving individuals have long ago, and at all times, recognized the value of trees, not only for their ornamental and decorative qualities for their home grounds and parks, but also as an essential, attractive and inviting feature of the public thoroughfare. But it seems to be the privilege of the present age, in this country at least, to awaken to the important discovery that street trees should be planted, maintained and controlled by the community and not by individuals.

Let us see what has been accomplished elsewhere in this line

of municipal development. Every one has heard of the queen of cities, Paris, and those who have seen the city will admit that of all the special features of attractiveness, artistic and natural beauty, which other European and American cities may offer, Paris, as a whole, is "the city." With all its architectural attraction of public and private buildings, of its many wide avenues and streets alive with the restless, fascinating throng of a busy and pleasure-loving people, of its quays along the river Seine, with its numberless fine bridges, of its many historical palaces and grounds, yet the city would lose, as a whole, a great part of their combined attraction if the systematically planned and uniformly well-kept trees were removed. Paris has over 120,000 trees on its public streets, and they are maintained by the city at a cost of less than a half million francs, which is less than a dollar a tree per year. This is a small amount, considering the perfect manner in which the trees are cared for. They are protected by wire guards from horses and a neat-looking cast-iron grating on a level with the surrounding sidewalk protects the circular space about eight feet in diameter which is left open at the base of each tree. These grates can be removed for loosening the soil, and during the dry season the tree is watered. At intervals of time the soil around the tree is renewed with fresh soil from the open country, or with composted soil. Sickly trees are removed and replaced by healthy ones of the same size, so there is no missing link in the tree-lined avenues. They are pruned symmetrically to the same shape and height, which gives them somewhat an artificial stiff appearance that does not seem out of place with the formal architectural appearance of unbroken lines of buildings.

It seems impossible that all the trees of Paris can be so well taken care of for so small an outlay, but that is explained by the fact that a specially equipped department, not molested nor misused by politics, but managed on sound, practical and economical and business principles, a department furnished with all modern implements, having its own nurseries where the trees are grown to different sizes and expert foresters are employed; and by these means, in Paris, the taxpayers receive the full value of their money spent for trees.

Washington, our capital city, will become the Paris of

America as far as tree-lined and arched avenues and streets are concerned, when the plans are fully developed.

The movement in favor of the planting of trees along highways and on public grounds is steadily gaining all over this country. In some states, among which is Massachusetts, New York, New Jersey, New Hampshire and Ohio, cities which have the power have passed ordinances placing trees under the authority and jurisdiction of the city government, and in other states, cities have acquired similar authority through special acts, or amendments to their charter by the legislature.

In Lawrence, Mass., and Pittsburg, Penn., the park commissioners have the entire care of the trees and the expense is paid from the general park fund.

The state law of New York is that all cities shall have entire control of street trees, but they are not always cared for by the same department. In the cities of New York and Buffalo, the park commissioners set and care for all trees on parkways and boulevards. In Philadelphia the city takes care of the trees on its streets and school grounds. In Springfield and Worcester, Mass., the street trees are under the care of the city forester. In Worcester the city forester is under the direction of the park commission. In New Bedford the street trees are under the care of the board of public works, but the expenses of the same are paid by the abutters. The Minnesota state law gives park commissioners the right to set street trees and to collect from abutters the cost of setting. In Baltimore an abuttor can petition the park commission to set trees, when they must do so; the cost being paid by the abuttor to the amount of \$5 per tree, which is the maximum price the city can collect, and it is further provided that if the tree dies within three years the park commissioners must reset it without additional expense to the abuttor. In Essex county, New Jersey, and in several other cities, park commissioners may set and maintain trees along sidewalks near or leading to their different parks. In Hartford the official care of the street trees is with the board of street commissioners.

In Brooklyn and Manhattan and other cities, tree-planting associations have been organized and they have planted thousands of street trees in the last few years. All this shows that the value of trees on highways is fully recognized by all pro-

gressive people and communities, and that it is the prevailing sentiment of the present age that street trees should be owned, planted, controlled and maintained by the authorities having charge of the highways on which they stand, or by other commissions having special authority over the street trees other than the street department.

Existing conditions always will be a controlling factor in the proper layout and maintenance of street trees, and while certain general principles governing the proper care of trees are of importance in general, yet each city has to determine its own way and to overcome its own obstacles in order to arrive at the desired results.

The advantages of municipal ownership and control over individual ownership and management are very evident. Municipal ownership means systematical, uniform, practical and economical development and treatment, it means proper care at the proper time, which is of the utmost importance in regard to the devastating attacks of insects and fungus pests. It means improved appearance of our streets in all parts of the city. It means, last but not least, a better sanitary condition for the people as a whole, for medical authorities agree that the cultivation of trees in streets mitigates the intense heat of the summer and diminishes the death-rate of the children, for the trees give shade, and the foliage inhales the carbonic acid and exhales oxygen. There is no sound argument possible against the value of trees in our streets nor against the proposition to have them under the absolute control of the city government. And even the expense which a city will have to meet in the equipment and the maintenance of an official forestry department will be comparatively small considering the far-reaching benefits which all the inhabitants will derive from well planted, shady and attractive looking, tree-lined streets.

SECOND PART—THE STREETS AND TREES OF OUR CITY—WHAT THEY ARE AND WHAT THEY OUGHT TO BE.

A lack of good management in the general treatment of the street trees of Hartford is the most obvious feature. The causes for this are very evident to any one who thinks at all about the matter, and discussion of them may be dismissed in

saying that it is the purpose of this report to try to point out the way to avoid such a state of affairs in the future, and to correct the existing conditions as far as possible.

The trees have been variously located along the traveled walk: in some cases between it and the abutting property; in most cases, between the traveled walk and the curb. Others, again, are on the adjoining land just inside the property line. The spacing is unsystematic and many stand too closely together, the necessary thinning having been neglected. Few trees, suitable for city streets, ought to be allowed to stand closer together than from forty to fifty feet. On almost every street there is a lack of uniformity in the selection of the kinds. On most of the streets which have been planted, there are long distances entirely without trees.

Nearly all have been badly neglected in the matter of pruning. Dead limbs are prevalent everywhere, and are not only unsightly, but are a menace to the health of the trees, and dangerous to passersby underneath by their liability to break off and inflict injury. It may not be feasible to give every large tree that pruning which it seems to demand, but the larger dead limbs ought certainly to be removed. In the case of the younger trees, it is to be hoped that all dead limbs may be removed, and that such treatment will be kept up in the future.

Only scattered attempts have been made to combat the various insect pests, of which there are a number. The worst of these, and the one most in evidence to the general public, is the elm leaf beetle. The most effective way to cope with it is by spraying. Last summer at Lafayette square, the sprayed elms made a striking contrast to some of their unsprayed neighbors, which were badly defoliated. Besides the beetle there are the woolly maple bark louse, the fall web worm, the oak pruners, and other insects.

On the whole, the ideal location for a line of street trees is between the property line and the traveled walk. When they are planted between the traveled walk and the curb they are nearer the dangers which menace them from the street. Placed thus, they are within the reach of horses, evidence of their destructive gnawing being altogether too common. The roots are nearer the influence of escaping gas, both illuminating and sewer, and large vital ones which may have extended into the

roadway are liable to be cut off whenever the streets are dug up. On the other hand, if placed between the traveled walk and the property line these dangers are pretty well eliminated, and there is the advantage that the roots can readily find their way into the adjoining land, and do not have to contend with the asphalt, macadam, or other unsuitable material which may be in the roadway. However, there are cases where, on account of the existing layout, it will be impossible to plant trees elsewhere than between the curb and the traveled walk, as for instance, where the inside grass strip is two feet wide and where the outside strip is nine feet wide; two feet not being wide enough. Five feet ought to be the minimum width. Trees placed in the middle of a nine-foot strip are removed from the immediate reach of horses, and if the soil is of good quality and sufficiently deep, say two feet, ought, unless untoward circumstances arise, to do fairly well.

Almost any street in the city with trees on it is an example of what the ideal street ought not to be in this regard. Farmington avenue being a well-known thoroughfare may serve as an illustration, combining many features which ought to be remedied if possible or avoided in future work. There is no uniformity in the selection of the kinds of trees, taking the avenue as a whole; rock, red and sycamore maples, elms, European and American lindens, horse chestnuts, and other kinds occur in a heterogeneous mixture, and are variously located inside and outside of the traveled walk. The ideal selection would have been one kind for the entire avenue, or several kinds, each kind planted by itself. The distance between two intersecting streets might, for instance, have been all elms, and between the next two streets European lindens. The pruning of the trees is like that of most of those elsewhere, that is, practically none has been done, and the trees contain a great deal of dead wood. Some of the rock maples have been severely butchered to let wires through their branches. Of late years the rock maples on the avenue and on some of the side streets have been dying. Just what the cause is, it is difficult to say. However, this fact is an argument in favor of the feeling now gaining ground among experts, that the rock maple is unsuited to city conditions. The spacing in some instances is too close and long stretches occur where there

are no trees at all. A great many have been seriously injured on their trunks by the gnawing of horses.

No street in the city affords an example of the ideal. The nearest approach to this is, perhaps, Washington street. Standing at the northern end, and looking southwardly, the general effect is one of uniformity, the American elms predominating to such an extent that they seem on first inspection to be the only kind. A closer inspection reveals an admixture of other trees, irregular spacing and other defects.

The list of trees adapted to city conditions is a limited one. The ailanthus is preëminently the tree which stands more adverse city conditions than any other. Smoke and gas do not seem to affect it, apparently no insects attack it, and it will live and grow in a dry location amid asphalt and other pavements. Although for beauty it is not of the first order, it ought, for the foregoing reasons, to be quite extensively used. Others similarly constituted are the cottonwood, white poplar and some forms of willow. Next are the European linden and the English elm, both of which are tougher in this respect than the American species. All things considered, the best tree for the semi-urban and the suburban parts of a city, where it will have enough room, and where the soil is at least fairly good, is the American elm. Its advantages are a high but not too dense shade, the ease with which wires can be passed through its branches, its rapidity of growth, and the beautiful gothic way in which its limbs overarch a street. Its disadvantages are its lateness in putting out its leaves, its habit of shedding them continuously from about the middle of the summer onward, its earliness in losing them altogether, and its liability to attack by the elm leaf beetle. Although the habitat of the American elm is a moist locality, it does well even if planted where the ground is somewhat dry, seemingly having the power to send its roots a great distance in quest of water. The English elm, however, has proven in other cities to adapt itself much better to unfavorable city conditions, such as smoke and gas, and excessive drainage of the soil. It also holds its leaves during a longer period. Its worst fault is its greater attractiveness for the elm leaf beetle than even the American elm. Nevertheless it can be highly recommended as a street tree for the city of Hartford. Some other trees for the suburban portions

of the city are red, scarlet, black, and pin oaks, horse chestnuts, hackberry, silver, and red maples and black walnut. Of all the trees frequently planted, the rock maple is probably the worst, although as a park tree it is one of the first merit. It is one of the first trees to succumb to urban conditions as the city reaches out into the country. If it is planted thickly along a street, and thrives, its shade is too dense. The smallness and multitude of its branches make it difficult to treat it to allow telephone wires to pass through. Linemen say that it is absolutely essential that not the least twig be allowed to touch such wires. In order to prevent this in the case of the rock maple, there is no other way than to cut a great hole in the heart of the mass of branches, and this, if left to the average lineman, usually results in ugly and injurious mutilation. If used at all as a street tree, it ought to be planted only sparingly on the side streets of the more rural portions of the city. The Norway maple is often planted, and stands city conditions quite well, but it has some of the objectionable features of the rock maple, namely, the denseness of its shade, and its branchiness, and consequent unsuitableness for electric wires. Judging from the somewhat limited data furnished by experience in other cities, the ginkgo promises well as a street tree. It is to be hoped that a trial will be made of it in Hartford.

Without making recommendations in detail for the future treatment of the streets of Hartford as regards trees, it may be well to draw attention to a few thoughts on the subject in order to give an idea as to what might be accomplished if this whole matter were systematically managed under one head. Let Franklin avenue serve as an example. Its length combined with its straightness makes it adapted to form a fine avenue of trees. It would be well if the comparatively few existing trees, which might interfere with the design of planting, were removed in order to secure that uniformity which is so desirable in city streets. The avenue might be planted in sections with the different kinds. A tentative list might be, beginning at its northern end, and going southwardly,—ailanthus, cottonwood, English elm, American elm, pin oak and red oak. On some of the narrower streets and on those streets on which the building line is near to or on the inside line of the sidewalk strip, large trees are not feasible. In cases like this, the practice

followed in some European cities is suggested, namely, that of planting trees which would attain a large size if left to grow naturally, but which in this case are allowed to attain only a certain size and then are practically kept there by severe pruning. Trees so treated have a somewhat unnatural appearance, yet they are better than none at all, and their foliage affords a grateful shade and a pleasant rest for the eye. The experiment might also be tried in similar cases of using the Lombardy poplar, not for its shade, which is not wide enough, but because of its columnar form of growth, which requires but little space. It seems that it ought to be effective in an architectural way, and that it would relieve some streets of their monotony. In regard to other streets, it is only necessary to say that there are a great many where planting can be done, but has not been, which will some day need the attention of the tree planter.

THIRD—CONCLUSIONS AND RECOMMENDATIONS.

Whereas, A thorough and practical investigation has been made by this committee regarding the present system and condition of the trees within the streets of our city; and

Whereas, Said investigation has resulted in the gathering of a number of salient facts showing the existence of undesirable conditions and the pressing need of a more systematic and uniform management, and the need of better care and maintenance of the trees at present existing; therefore, be it, and it is hereby

Resolved, That in the opinion of the members of the Hartford Florist Club, the system of planting and caring for the street trees of the city of Hartford is not properly developed, and that generally the trees are not well cared for; and it is further

Resolved, That it is the judgment of this meeting that all trees standing within the limit of all highways of the city of Hartford, should be planted, maintained, and controlled by the city government; and it is further

Resolved, That it is the opinion of this meeting that a forestry department should be created with a sufficiently yearly appropriation to develop and maintain the tree planting along all highways in an efficient and practical manner, that said department should be under the jurisdiction of proper authorities, and

should be clothed with sufficient power to carry on its work after a uniform and systematic plan; and it is further

Resolved, That this report be transmitted to his honor, the mayor, the honorable court of common council, the board of street commissioners, the board of park commissioners, the board of trade, the Civic club, and the Landlords' Association, with the respectful request that they give the subject their careful consideration, with the object in view to devise such plans and take such action as may lead toward the desired results.

All of which is respectfully submitted.

THEODORE WIRTH, *Chairman*,

G. A. PARKER,

ROBERT KARLSTROM,

HANS J. KOEHLER,

J. WESSON PHELPS,

Committee.