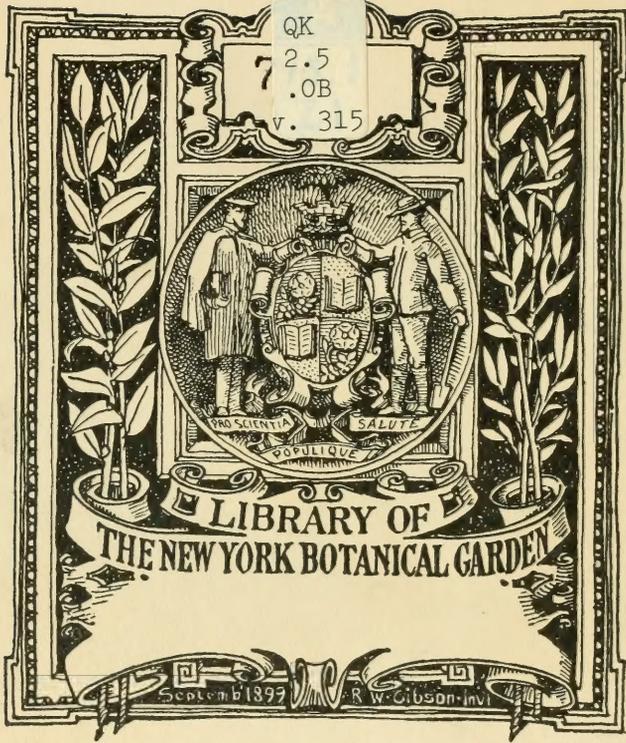


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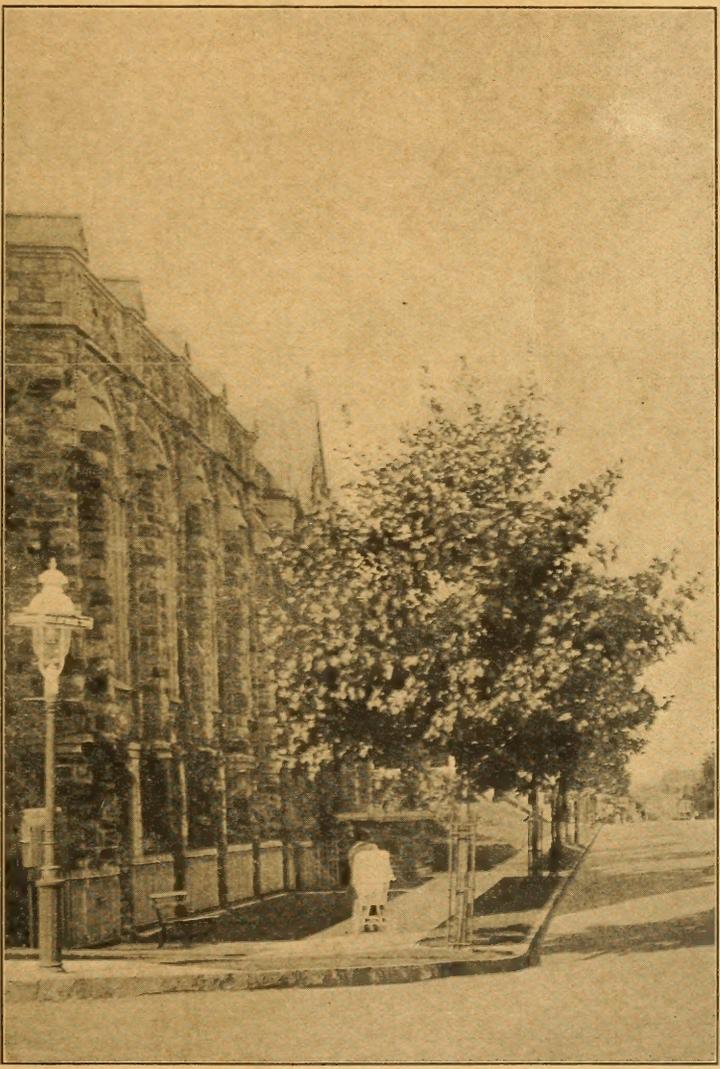
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A Plea for Street Trees in the Borough of The Bronx



DEPARTMENT OF PARKS BOROUGH OF THE BRONX
Claremont Park, The Bronx
1916



A Plea for Street Trees in the Borough of The Bronx

Bronx Borough - Park Dept.

DEPARTMENT OF PARKS
BOROUGH OF THE BRONX

Claremont Park, The Bronx

COMMISSIONER OF
THOMAS W. WHITTLE
COMMISSIONER OF PARKS
FOR THE BOROUGH OF THE BRONX

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1916



Realizing that the Borough of The Bronx is behind the other boroughs in the matter of street trees, I have been endeavoring to adopt ways and means of encouraging the property owners of The Bronx to contribute to the beautifying of our Borough by planting the proper kinds of trees in the streets in front of their property.

Inasmuch as this Department is charged with the duty of caring for street trees in this borough, I have felt that I could logically and effectively appeal to our citizens to aid in beautifying the streets by planting trees if I could find it possible for the Department of Parks to furnish and plant the proper trees at a nominal cost.

I am glad, therefore, to be able to state that this Department is now prepared to furnish, plant and guarantee any of the following named trees in the streets of the Borough of The Bronx, for the sum of \$12.00 each:

NORWAY MAPLE,	PIN OAK,
ORIENTAL PLANE,	AMERICAN ELM,
RED OAK,	EUROPEAN LINDEN.

All of the above trees will thrive well in city streets, and all trees planted by the Department will be guaranteed.

It is the Department's intention to furnish a tree not less than 2½ inches in diameter, having a straight trunk, and to be free from branches to a height of at least 7 feet, the first branch not to be over 9 feet from the ground.

The trees furnished will be free from insect pests and disease, and have compact, fibrous roots and well balanced heads.

Poplars, Silver Maples and Willows are undesirable as street trees, and permits for their planting will not be issued.

Trees cannot be planted in the streets of this borough without a permit from the Department of Parks, for the Borough, whether they are planted under this arrangement, or by others outside of the Department.

After receiving a permit from this Department, you must then procure from the Bureau of Highways, Borough Hall, a permit to open the sidewalk for the purpose of planting trees.

In addition to furnishing and planting trees, the Department will also furnish and adjust around each tree a suitable tree guard for purposes of protection.

This Department reserves the right to decide upon the species of trees to be planted in any street, it being the desire of the Department to make the planting uniform, planting Linden trees in streets where there are already Linden, Norway Maples in streets where there are already Norway Maples, etc.

Those who desire to have this Department furnish and plant trees for them, at a cost of \$12.00 each, as herein explained, should address their applications to

Commissioner of Parks,
Borough of The Bronx,
Claremont Park,
The Bronx,

and should send with their applications post office money orders or checks for the proper amount, made payable to the "Commissioner of Parks, The Bronx."

This is the time for planting, and I earnestly hope that a large number of our citizens will take advantage of this opportunity to help beautify our streets.

THOMAS W. WHITTLE,
Commissioner of Parks,
Borough of The Bronx.

As soon as I became Park Commissioner for The Bronx, I began a systematic study of ways and means by which I might make this Department serve the people in The Bronx more definitely and surely than it ever had done before.

I soon realized that one of the most effective ways in which to make the Park Department serve the people was to find some way in which the Department could furnish and plant the proper kinds of trees in the streets of the borough, in front of the property of citizens, at the least possible cost, for a survey of the matter showed me that, while there are about five hundred miles of city streets in the Borough of The Bronx, there are approximately only 27,000 street trees.

For the reason that funds are not appropriated to this Department for the purpose, it cannot furnish and plant street trees; however, permission for the planting of trees in the streets of the borough must be obtained from this Department, and after they are planted, the Department is charged with the duty of taking care of the street trees.

I have felt that, if this Department could furnish and plant trees for a nominal sum, and thus encourage property owners to

plant trees along the streets in front of their premises, it would be performing a good service, to both the borough and its residents.

Because of the condition of the soil in this borough, and the many obstacles met with in planting trees in our streets, the cost of furnishing and planting trees in the streets is bound to be slightly higher than would be the case in another vicinity, where soil conditions are different, and where tree planting may be done with much more ease, and consequently at a lower cost.

After the trees are planted, the owners of property in front of which the trees are planted should see to it that, in dry weather, and especially in the summer time, the trees are properly watered from time to time. In dry weather, each tree should have at least 6 gallons of water once a week.

For the benefit of those who do not desire to have the Department plant trees for them, but who desire to purchase their own trees and plant them, under a permit from this Department, I may say that it is advisable to plant street trees at least 25 feet apart, so as to give them proper space for development, and in order to avoid too dense shade.

The best time for planting is from March 15 to May 1, and from October 15 to December 1.

The opening in the sidewalk should be at least 3 feet square, or larger if possible, say 5 feet by 4 feet, especially where the sidewalk is of concrete, and the roadway of asphalt. The hole should be at least 4 feet square and 3 feet deep, and filled with good, rich soil. Manure should not be allowed to come in direct contact with the roots. The tree should be planted at the same depth at which it stood before transplanting, sprinkling fine earth among the roots and tamping it down firmly, to exclude air space. After planting, a guard should be placed around the tree. The tree should be protected from contact with the guard by the use of a piece of rubber hose placed between the tree and the guard.

Citizens are urged to plant trees in front of their property.

Still better than individual planting is coöperative planting by streets or blocks. This method secures uniformity of treatment. If all of the property owners in a given block would join together in having trees planted in front of their property, it would help greatly toward bringing about uniformity of street trees.

Permits for planting trees on the city streets are issued by this Department upon application; and, after obtaining the permission of this Department, the Bureau of Highways will grant the necessary permit for opening the sidewalk.

PLANTING A TREE

Now, what does it mean to plant a tree? It is an interesting bit of work, and an account of the process may be instructive. Well, this is how we do it. First, of course, we dig the pit. Dimensions, 4' long, 4' wide, 3½' deep—ordinarily. Varying conditions vary the dimensions, but the mean is as given. The soil removed (practically three tons) is enriched with fertilizer and manure, and enough topsoil similarly enriched is added to fill the pit. Any "poor" or gravelly dirt left is carted to the dump. When



Showing two Maple trees planted on one of the streets of The Bronx. Note the fine heads on these trees and the shade they give to this porch

all is ready for actual planting, a young tree, carefully selected, is pruned both top and roots, so that these will "balance" and that no broken or bruised members may remain. A small pit is then scooped out large enough to take in the outspread roots and the tree is set in place. It is planted to the same depth it had in the nursery. The soil is very carefully packed about the roots, to avoid air spaces, which latter would cause the drying up of the roots, and consequently their death. Fine pulverized earth is used in the packing, and this supplies to the roots plenty of available food, as well as congenial surroundings. The said surroundings have to be "congenial," for if a chunk, say, of manure or fertilizer should get in touch with the roots, it would create such a condition of heat and excess of available plant food as might be fatal to that

root, or to the entire tree. It may be added that another good effect of the pulverized earth packing is to create a condition of capillary attraction, which promotes the access of air and water to the roots; and it cannot be too often noted that the free access of these two elements is a vital essential.

Puddling while planting is always good. It helps in packing the soil around the roots, and it gives the tree moisture to begin with. Under ordinary circumstances, the soil is moist enough in the early Spring to render puddling not imperatively necessary, though the planting is the better for it at any season. If late in



A street in The Bronx, which illustrates the difference in street trees. On the left is a row of Poplars, which, on account of their size, have been pollarded, and will some day be removed; on the right is a row of promising European Lindens, which represent the beautiful and useful street tree.

the season, or if the soil is dry, for any other reason, puddling is essential.

The price of \$12.00 charged by the Department covers the cost not alone of the tree itself, but also of all necessary stone-cutting and subsoiling, as well as of the wire guard, rubber collar and stake. We guarantee all our trees, and replace any that die (whatever the cause of death) without extra charge. Every tree planted by us is of first-class quality, free from disease and injurious insects, straight of trunk, at least two and one-half inches in diameter, one foot above the ground, bottom of crown eight feet above ground, well-developed head and good leader, and annually transplanted.

Each tree is surrounded with a wire guard to protect it from the biting of horses; top of guard bears a rubber collar to prevent chafing. The tree is held in place by a stake until the roots shall have taken their own firm grip on the soil. Every tree planted by us is cared for after planting, with systematic, scientific care.

CARING FOR A TREE—MULCHING

Now, what is meant by “caring for” a tree? It means that the tree is to be systematically mulched, fed, trimmed, sprayed, and so on. These operations have their own appropriate times and seasons. Now take mulching. The layman asks, what is that?



Prospect Avenue, showing European Linden

Answer: It's the applying of a mulch. And what's a mulch? Well, it's a covering of loosened earth, or other substance, which is strewn on the ground at the base of a tree or plant, in order (1) to conserve soil moisture by preventing or hindering evaporation; (2) to protect the roots from “winter injury”; (3) to keep the soil surface friable and mellow; (4) where the mulch is also a fertilizer, to add plant food to the soil. Take these in order. For (1) conserving the soil moisture, a good earth mulch is produced by the simple process of completely removing a layer of soil and laying it down again, bottom up, in a loose, open condition, but carefully pulverized. For (2) protection from winter injury, a number of good mulches are available. Take either of these: Leaf mold or peat, autumn leaves mixed with some litter to prevent their pack-

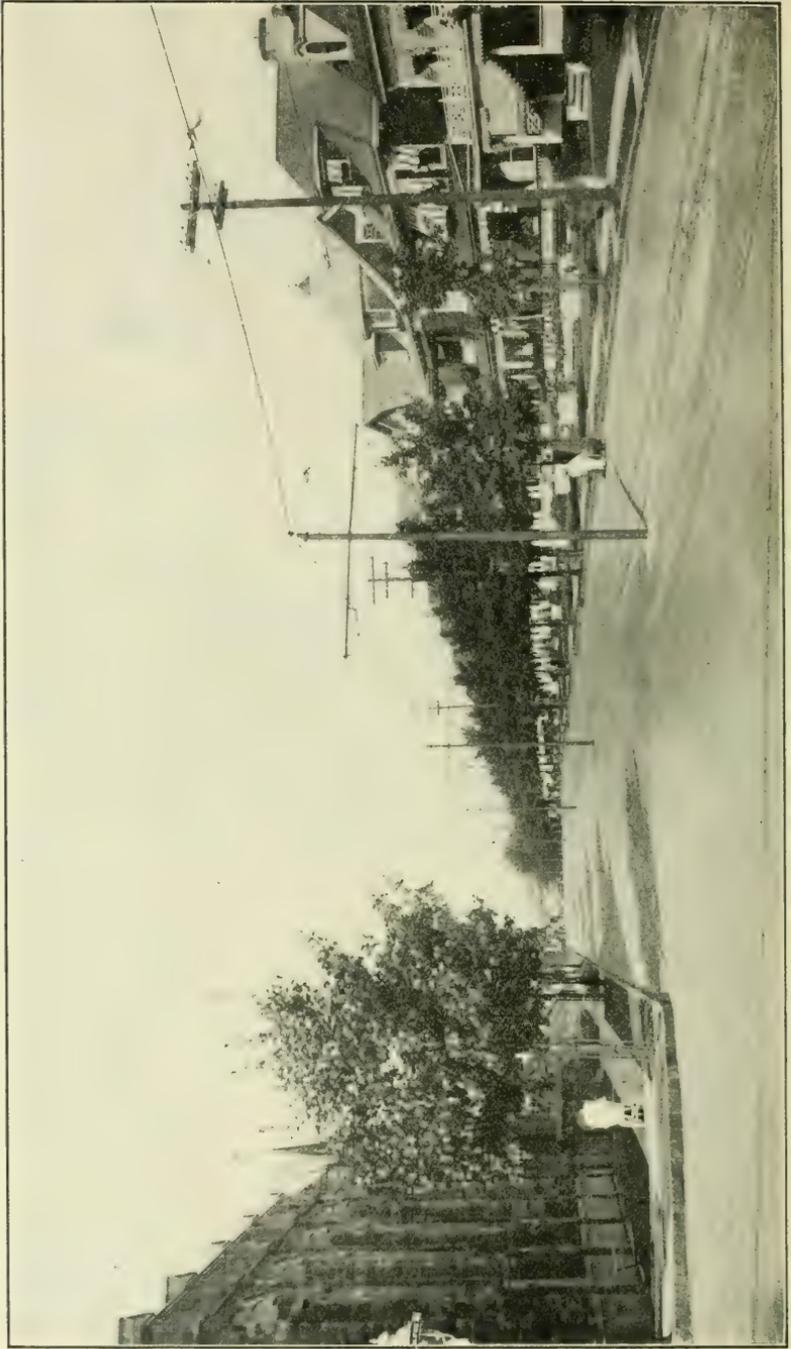
ing hard, well-rotted manure, fine straw, shavings, pine needles, evergreen boughs. Do not place the mulch too near the trunk of the tree. Then (3) any of the mulches named will make for the mellowness of the soil, by acting as a shield against the pelting of the storms of rain, hail, snow, sleet—also against the baking heat of the sun. The soil that is protected by its blanket of mulch does not cake or harden. And (4) where the mulch is at the same time a fertilizer, such as stable manure (rotted), the leechings seep down into the soil and enrich it with added plant food.

The city trees have to live an artificial life, and, for that reason, they require a great deal of water, especially during the hot sum-

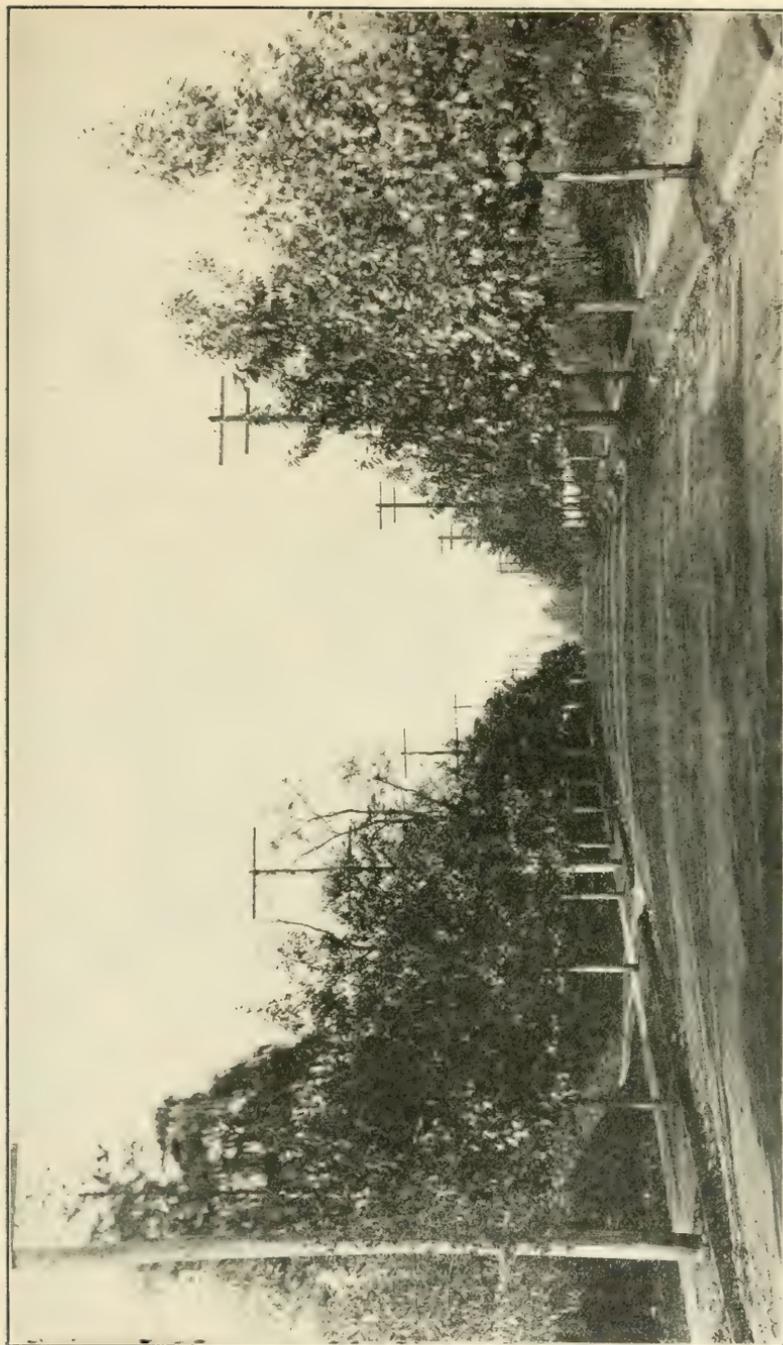


Small Leaf European Linden on Prospect Avenue, showing uniform growth, straight stems and well balanced heads of these trees

mer months. Let the owner help, therefore, by keeping the soil well watered, especially in dry, hot weather. Use, say, five gallons three times a week—or, better, twenty gallons once a week. Also, in dry, hot weather, wash down the tree itself, the whole of it, with plenty of water. Among other benefits of this latter treatment, the leaves, which are the lungs of the tree, are cleaned of dust, and the breathing pores are thus freed to open up and take in the life-sustaining air. Then, besides the leaves, the entire tree (trunk, branches and all) has its system of breathing pores, and these also need to be kept open and in good breathing order. So the washing down with water helps much, you see. And, notice this: whether watering the soil or the tree itself, do it not in the heat of the day,



Norway Maple. University Ave. Showing a uniform planting.



Bainbridge Avenue. Group of Red Oaks.

but either early in the morning or late in the afternoon or evening. The reason for this is obvious: to prevent too hasty evaporation the watering should be done "in the cool of the day."

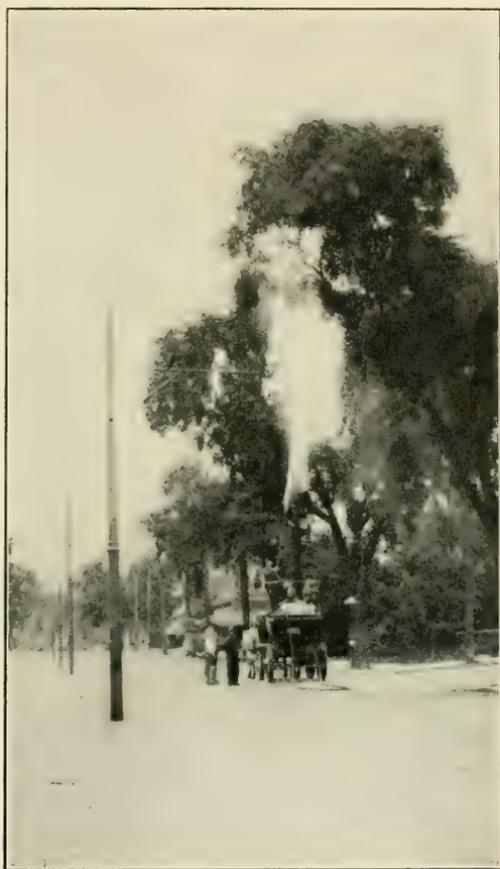


Spraying Outfit.

NOT ONLY WATER, BUT AIR

Just above, we spoke of the leaves as the lungs of the tree; but don't let the analogy mislead you. For "the life-sustaining air" must also be taken in at the roots as well. Mind that. Unless the *roots* get their quantum of air (and of water too), the tree will not thrive—nay, will peak and pine and die. Oh, we want you to be impressed with the importance of this. If you will let that impres-

sion take hold of you, you will never be of those who pave their walks close up to the base of the tree. How under the sun can air get to the roots, or how can water get there either, when a walk of

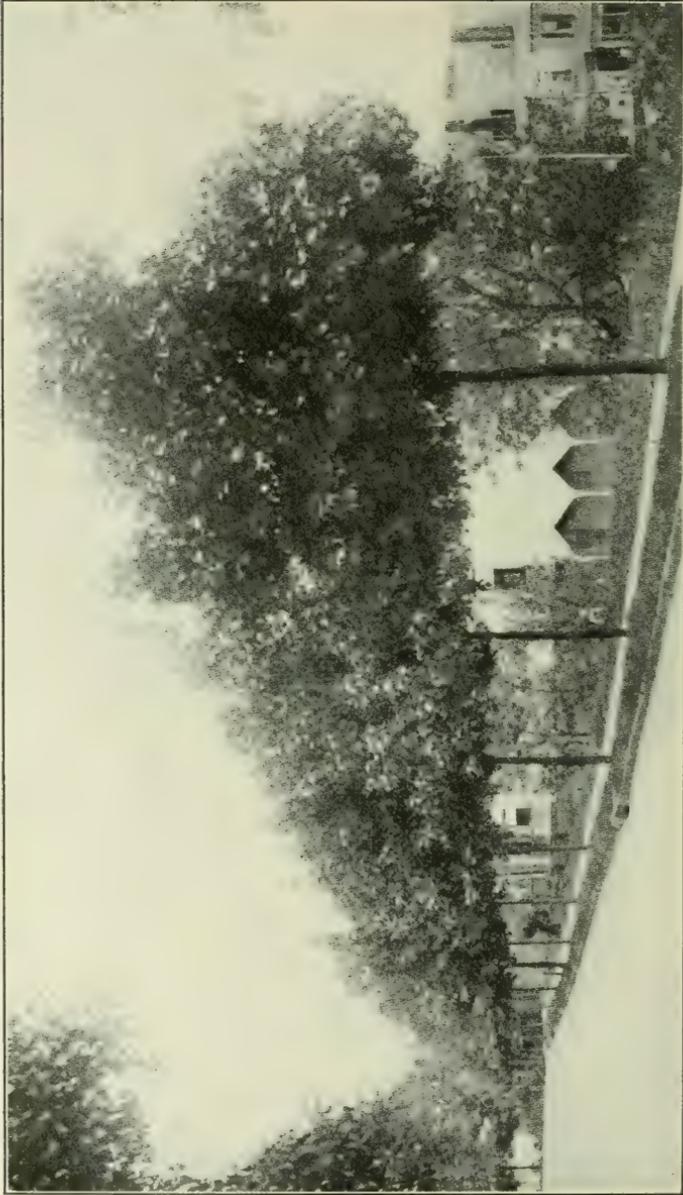


Spraying Tree.

impervious flagging, still worse of cement, is so close to the tree that no sufficiency of bare soil is left to allow the ingress of either air or water—those elements of such prime, such vital importance to the tree? For mercy's sweet sake, give your tree plenty of breathing space.

Trimming Trees

The trimming of trees is so important and delicate a task that the trimmings of all street trees is done by employees of the Department of Parks, who are trained in that work.



THRIVING NORWAYS. NOTE TREE BELT—THAT HAS MUCH TO DO WITH THE THRIFT.
Set out in 1906. . . Photo, 1915.



“THE OAK, THE PATRIARCH OF TREES”—Only these have not yet attained patriarchal age.
Set out 1906. Photo, 1915.

A tree is a live thing, and a living organism—not merely a stick of wood—and for that reason the proper trimming of a tree is a surgical operation.

Consequently the Department will not allow street trees to be trimmed by individuals in front of whose properties the trees may grow, but itself trims and cares for all trees in the streets of the borough.

Insect Work

This is another of our routine activities in “caring for” the trees. There are insects and insects. Some of them are harmless, indeed beneficial. Others of them are the devil’s own pests. Such are the Tussock Moth (Caterpillar, the Elm Leaf Beetle, the Wood Leopard Moth) borer, all ferocious devourers. Other pests, not so destructive and covering but limited areas, are the red spider, bag worm, spiny elm caterpillar, woolly louse, cottony maple scale, aphid phenacoccus.

The Tussock Moth directs its ravages against a practically unlimited variety of (shade) trees and shrubs. The Elm Leaf Beetle confines its attacks to the Elm. These (the tussock and the beetle) are leaf eaters, as distinguished from the wood-eating borer. Against the tussock and the beetle we use a solution of Arsenate of Lead, eight pounds of the arsenate to one hundred gallons of water. This we apply in a fine spray by means of a gasoline sprayer, 2½ horsepower, aiming the spray at the underside of the leaves and taking pains to do thorough work. Spraying for leaf-eaters, especially the tussock and the beetle, lasted from the latter part of May to about the middle of July.

The Borer (wood leopard moth) is a wood-eater, as we have said. Also he’s an imp of destruction. His presence argues at the outset poor nutrition and low vitality of the trees. While the caterpillars are harmful, because of their numbers, one borer will suffice to kill a stately young tree. His attack is strategic. He makes for the cambium layer of cells beneath the bark and tunnels around the tree horizontally. Since the ascending and descending sap has its course through the cambium layer, and since the tunnels break the cellular connection, the circulation of sap ceases. The borer is immune from wholesale mechanical methods of extermination. Each grub must be sought out individually, and often one or two days will be consumed in locating them in a large tree and ridding it of them. This may cost \$5.00 per tree, while a tree of like size may be cleared of ten thousand caterpillars with one dose of spray at a cost of thirty cents.

We have to combat several varieties of this pest, but the method

of attack and the treatment are practically identical for all varieties. They are found chiefly on the Silver and Sugar Maple, but occasionally they also attack the Elm, the Red Maple, the Pin Oak, and a few other trees. The eggs are deposited on the bark, and the young soon hatch, crawl to a convenient place and begin to



Simple Device for Guarding Trees from "Building Bruises."

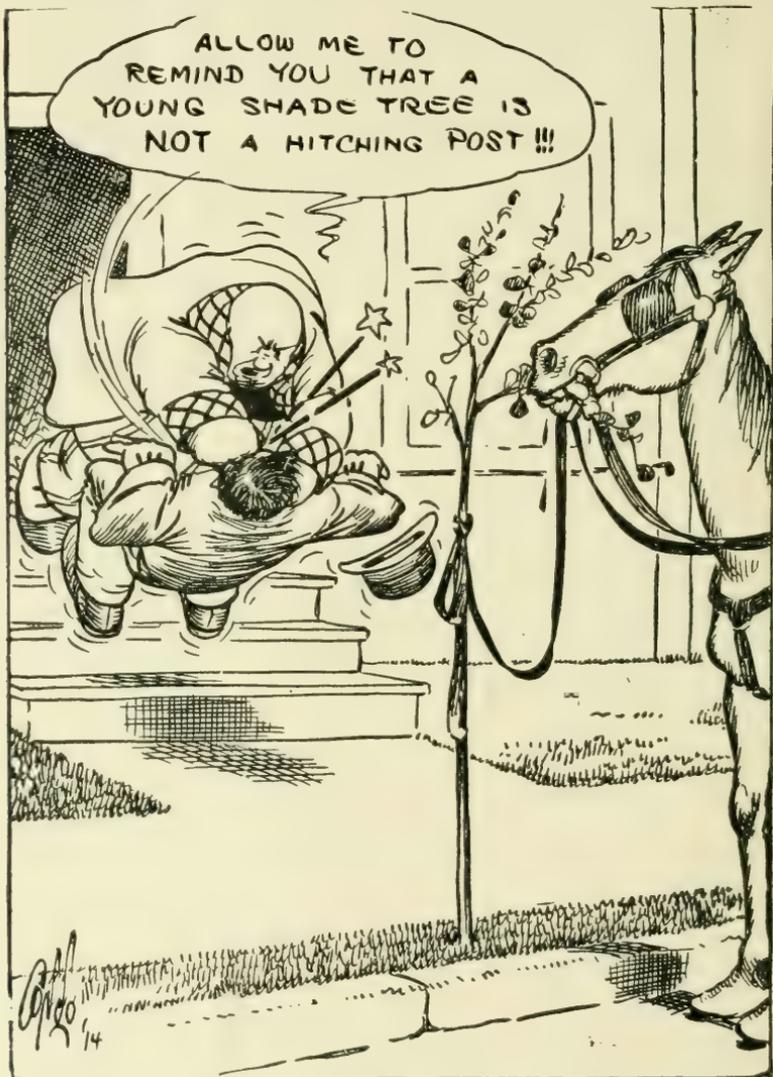
bore, working first upon the smaller branches and then descending to more spacious quarters as they increase in appetite and size. They are voracious in their feeding habits, and let it be repeated that a single borer often causes the death of a young tree.

Protecting the Trees

Well, we've told you of planting the trees and caring for the trees, and now we'll tell you of protecting the trees. What! do they need protection? Indeed, and indeed, they do. And from what, pray? Well, to put it succinctly, they need protection in

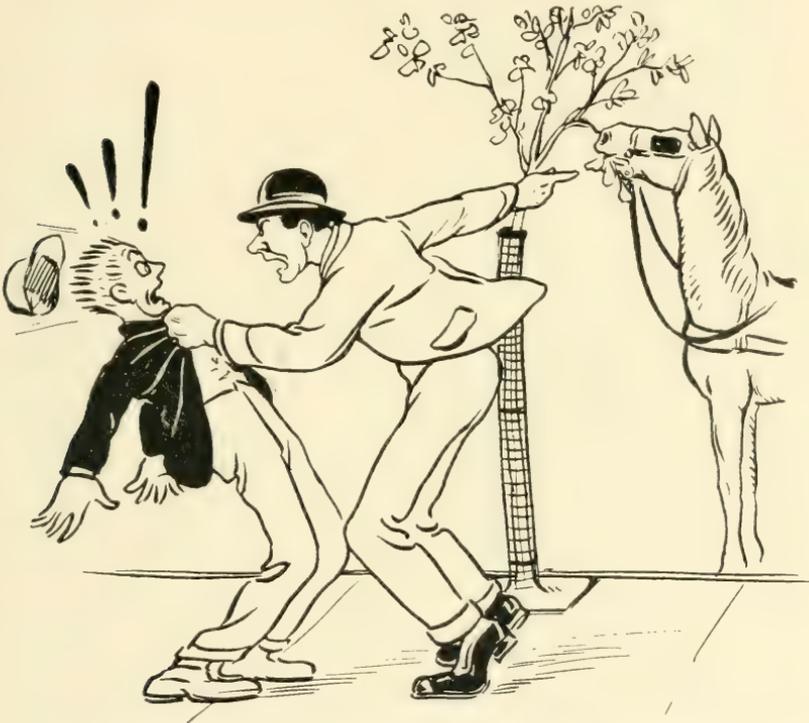
some cases from "pure cussedness" and in others from sheer thoughtlessness. From which of these sources most harm comes we don't undertake to say. But it minds us of an old ditty and we give it here without committing ourselves as to the sentiment thereof. Here's the ditty:

Outbursts of Everett True



More evil is wrought from want of thought
Than is wrought from want of heart.

But whether from thoughtlessness or cussedness, evil, and much evil, has been wrought in the past against the street trees of New York. 'Tis not so bad now, but it's bad enough. There's muckle of room for improvement. Horses are still allowed to dine on the bark. The roots are still cut by all sorts of contractors. Sidewalks, in many cases, are still too close to the tree's base and

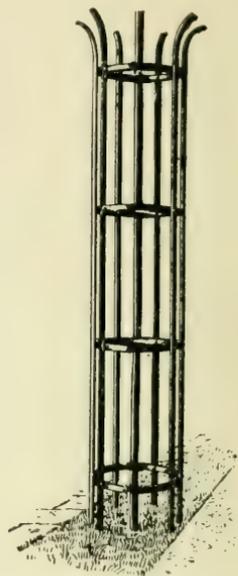
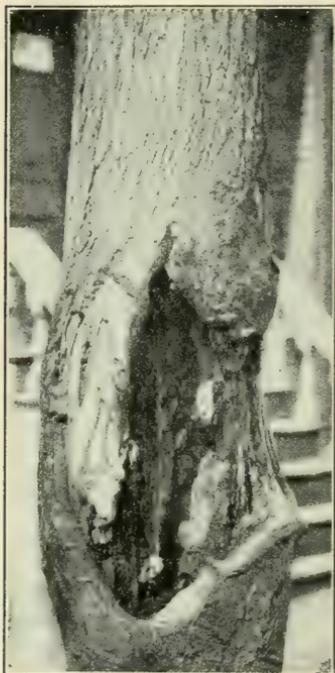


And he was wroth with the Philistine and smote him

still keep out of the soil that sufficient quantum of air and water of which we have spoken above in detail. The laying of all kinds of pipes underground and the placing of all kinds of wires overhead still do detriment. Trucks are still, through vandal recklessness, brought into violent and damaging contact with the trees. And so on and so forth. Do the trees need protection? Ah, sir, the tale is tragic. Let us lighten the sad story.

As you see, a little debate is going on. The participants are Brother Everett True and a Mr. Nemo. Mr. Nemo is the owner

or driver of the bystanding horse. Owner or driver—we don't know which; and in his present state of mind probably Mr. Nemo doesn't know either. Brother True, you observe, is leading the debate. He is the gentleman on top. Notice with what force he is driving home his arguments. No; it is not a discussion on Astron-



omy. The morning stars ricocheting about Mr. Nemo's caput are merely to indicate that the light of conviction is dawning in that gentleman's mind. Brother True's "reminder" is apt to abide with the worthy Nemo. The latter is likely to remember his whole life long that "a young shade tree is NOT a hitching post."

Now we cannot approve of Brother Everett True's method of disputation; but we can and do emphatically endorse the theme of his argument. Owners and drivers of horses should be reminded, and should continue to remember that a street tree is a TREE and not a hitching post; neither is it set in its place to serve as luncheon for horses. Please remember, gentlemen: it is unlawful to tie any horse or other animal to any tree in any public highway, or to allow such horse or other animal to injure any such tree or to stand where it can injure any such tree. Allow us, also, to remind you

that a violation of law in this respect carries with it a penalty of Ten Dollars for each and every such offense.

But let us lay aside the law and appeal to sentiment—to your sentiment, dear sir. It is pitiful to note the havoc to street trees wrought by munching horses. Walk along streets where trees stand near the curb and notice the effects due to a most lamentable negligence. In most cases the trees are without guards. Bright and early the milkman comes along and jumps off with his can, leaving the horse to make a matutinal meal by gnawing the bark of the nearest tree. Later on comes the butcher, after him the baker, next the candlestick maker, then the grocer, and so on. The horses



of these gentlemen lunch upon what was left by the milkman's horse. And so there is inflicted an amount of damage limited only by the time the drivers choose to linger in friendly chat with their customers. Now to the average horse the bark of a tree is a toothsome morsel, and this good old four-footed Friend of Man can in a short while put a bite in the bark that will work sad detriment to the tree. THE PICTURE ON PAGE 20 WILL SHOW.

That ugly cavity is what comes in time of horse bites. First, the wood is made bare of its protecting bark. Then the weather gets in its work, rain, dew, dirt, tree bacteria, and so on. Decay sets in. The wood rots, and the rot spreads, spreads wider and wider and sinks deeper and deeper. In time the ghastly spectacle of the picture is realized. Pitiful, isn't it? Meanwhile and inci-

dentally the cambium layer of cells in that part of the tree has been destroyed and the nutritive processes of the tree have to that extent become deranged. There now stands a tree, its doom sealed and its glory departed. That which has been a thing of beauty and a tower of strength is now a thing to be ashamed of and in its weakness has become a thing to fear. Yes—to fear. For decay has gone so far that now the trunk is no longer stout enough to hold up the heavy top. The tree is liable to come down with a crash at any time, especially in a storm. So that that friendly growing thing which had offered man its beauty and its kindly shade now offers man a threat—has become an upstanding menace to man's life, limb and property.

Now who's to blame? Come, who is to blame? NOT THE HORSE. Settle that at the start, NOT the horse. He but does what man would do were man a horse. Then the driver is to blame, you say. Well, yes, in part. But the individual on whom ninety-nine per cent. of the guilt abides is the owner of the property in front of which the murdered tree stands. That's the party to blame. For a few dimes he could have safeguarded that tree absolutely from the horse's teeth. A wire guard would have done it. A wire guard—that's all. In towns and cities the trunk of every tree, whether young or old, newly planted or in full growth, should be enclosed to a proper height in a guard. For the young trees the guard should entirely surround the trunk, and should be made of no less durable material than half-inch mesh No. 16 wire, galvanized, lined with a collar of rubber hose to prevent chafing. This would cost at retail about 35 cents. For the older trees a wire screen on the side of the tree toward the roadway would suffice. This should also be of half-inch mesh galvanized wire No. 16. It would cost at retail about five cents per square foot. This simple expedient would effectually protect our street trees from the teeth of the horse. Every property owner, for his own sake, should thus guard the trees abutting his tracts of realty. It costs little, achieves much and ends the havoc wrought by the horse.

HELP WANTED—YES, AND NEEDED

Throughout this report we have been trying to engage the interest and help of the public in these our labors for parks and trees. We may here lay down a general principle which applies to these matters all around. That principle is that no Commission, be its resources what they may, can do all for the trees and parks that ought to be, and indeed needs to be, done unless such Commission has the widespread and cordial coöperation of the public. Given

such coöperation great things could be achieved, and it is safe to say that our good old Bronx before long would be a veritable rus in urbe. Then take hold and help. We have pointed out more than once that the street trees and parks of The Bronx constitute a most valuable asset of the borough and its citizens. Pray, realize that, oh, friends. These things have not only esthetic value, they have



Trees make for uplift

also high hygienic value, and, once more, they have realty value, good hard dollars-and-cents value. Hence the propriety and wisdom of all Bronxites uniting on behalf of these trees and parks. May we not then count on your cordial coöperation with this Department in conserving and promoting the welfare of your pretty "neighborhood" parks and your beautiful highway trees? We say "your," for they are your very own. Regard them as such. Deal with them as such. Yes; your HELP is wanted—your HELP is NEEDED.

And the Tree Spake and Said:

I AM A TREE

I AM THE HANDIWORK OF THE CREATOR

I AM HERE BY HIS APPOINTMENT

I AM FOR THE SERVICE OF HIS CREATURES, CHIEFLY MAN

FROM MAN'S ENTRANCE INTO THE WORLD UNTIL HIS DEPARTURE
OUT OF IT I AM HIS SERVANT AND BENEFACTOR

I MAKE THE CRADLE WHEREIN HIS INFANCY IS ROCKED AND THE
STAFF WHEREON HIS AGE DOTHS LEAN

I BUILD THE HOME WHEREIN HIS LOVED ARE SHELTERED; I
MAKE HIS HEARTH TO GLOW WITH CHEERFUL FLAME. I BUILD
HIS SCHOOLS AND CHURCHES, HIS HOSPITALS AND ASYLUMS.
I BUILD THE PLACES OF ASSEMBLY WHERE HE FOREGATHERS
IN FELLOWSHIP WITH HIS KIND

ON LAND AND SEA MAN NEEDETH ME. I BUILD THE SHIPS THAT
SAIL HIS SEAS, THE BOATS THAT NAVIGATE HIS RIVERS, THE
VEHICLES THAT TRAVERSE HIS HIGHWAYS. I CARRY HIM
HITHER AND YON AND BRING TO HIS DOOR THE PRODUCTS
OF ALL CLIMES. I BUILD HIS DEPOTS AND HIS BARNES, HIS
STOREHOUSES AND HIS GRANARIES. HIS MARTS OF COM-
MERCE AND EXCHANGE. IN ALL THE MYRIAD WAYS IN
WHICH LUMBER IS OF USE I AM OF SERVICE TO MAN

I AM TO MAN FOR BEAUTY, SHADE AND SHELTER; FOR WARMTH
AND COOLNESS; FOR FRESH AIR AND LIVING WATER; FOR
FOOD AND HEALTH AND WEALTH AND LARGER LIFE

THAT'S ME—I AM A TREE

The Value of Trees

Forests attract rainfalls. The tree plantations in upper Egypt increase rainfalls in a year from 9 to 15 inches.

Forests shelter birds, which destroy insects.

Leaves generate oxygen and absorb noxious gases. In warm climates shaded streets prevent sunstroke. Malaria follows destruction; fevers thrive every summer from deposited mud banks washed down from treeless heights.

Shade trees about a dwelling are as important as good plumbing. A house in a grove is worth double a house on a naked hillside. Consider the longevity of our "backwoodsmen" and foresters.

The Creator must have considered the trees His most perfect work in nature, they are so many times spoken of in the Bible.

The preservation of the forests is vital to the welfare of every country. China and the Mediterranean countries offer examples of the terrible effects of deforestation.

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