VALUE OF STREET TREES AND THEIR CARE

By Charles M. Loring, Park Commissioner of Minneapolis.

Walter Crane, who has done so much to improve London, says: "The great want in modern cities is trees. I should plant them wherever possible along the streets. Frequent open places should be arranged with fountains and seats, and these again surrounded with trees." This want still exists in most of our cities notwithstanding the great interest which has developed within the last decade for civic improvement and embellishment. There is hardly a city or town in the county, of any note, that does not have its improvement association, and yet there are but few that have a regular system for tree planting on the public street or for the care of the trees already planted. A few in New England, notably Springfield, Mass., appropriate large sums each year for the care of the trees, which are placed in the care of a forester, who has absolute control of planting, trimming and removal. Such an officer is much needed in Minneapolis, which, thru the influence of its park board, is fast becoming one of the best planted cities in the country. But the 12,000 trees which the board has planted have been sadly neglected, and are growing misshapen, thru the lack of funds to give them proper care and attention, and there are yet miles of streets on which there is no regular planting.

The park board has authority to plant trees on any street and to assess the cost abutting property, and it should be encouraged to vigorously push this branch of its work, and furnish means for paying for the care and maintenance of all trees on public streets.

No one will dispute that trees are among the greatest attractions of any city or village, but they are much more than that, they are conducive to the health and comfort of the inhabitants. It is well known that the leaves absorb poisonous gases, and possess the power of cooling the air thru the co-operation of moisture.

A well known writer says:

"The exhaling power of leaves has been most carefully investigated, and observations have shown the exhalation of a single leaf during one season amount to the by no means insignificant depth of 1.31 inches."

At a meeting of the New York Medical society a resolution was passed in which the opinion was expressed that "one of the most effective means for mitigating the intense heat of the summer months, and diminishing the death rate among children, is the cultivation of an adequate number of trees on the streets."

One great mistake the amateur tree planters made is in setting trees too near together. All over this and other cities, the deplorable effect of this can be seen. Practical experience teaches that elm trees should be at least forty feet apart, else they never reach perfection of form or vigor. There are many elm trees in New England having a spread of top of over 100 feet, and yet, every season one will see planters setting trees from ten to twenty feet apart. This should be prohibited by law.

The American white elm is the queen of trees for street planting, but it is folly to plant but one variety in a city or village. I would recommend, next to the elm, that hardiest of all trees, the Huckberry, next the white, or silver maple. The trunk of this variety must have protection from the rays of the sun, and should be kept well "headed in" for three years after planting. It will then form a close head and withstand the winds as well as an elm.

The American linden is a beautiful tree if well cared for. It, as well as all smooth bark trees, must have its stem protected. A guard made of two-inch strips of board is the best protector, but straw rope or building paper may be used.

When planting, dig a large hole and fill with plenty of rich loam. Mulch well, and water once in two weeks, without regard to showers, not sprinkle, but give the roots a thoro soaking, cultivate around every spring and do not permit the grass to grow within three feet of the tree. Give your trees as much care as you would a hill of corn and you will have no dead trees to replace.

STREET PLANTING

By F. Nussbaumer, Superintendent of Parks, St. Paul, Minn.

To obtain the best results in street planting, the first necessity is, a careful selection of the most promising individuals of such kinds of trees as have proved their ability to endure the hardship and uncongenial surroundings which they are subject to. Such trees are carefully grown nursery trees. They should be of the best form and habit, and be planted in the most approved manner in the best soil procurable and after planting they should receive unstinted intelligent care, so as to assist a healthy good growth. Health and vigor are the beauties of a tree. Shade trees on city streets should be planted not less than forty feet apart, and on a continuous street they should be of the same size and variety, so as to give unity of character and consistency of purpose as a whole. Frontage owners should not be permitted to select and plant their own trees on the street, as the effect produced is bad and grows worse as the individual habit of the trees develops, and intensifies the incongruity of the mixed planting. City street planting must be formal, as straight lines suggest uniformity. It is unlike the so much admired diversity of growth seen along country roads, because here it must be made to assist the architectural effect of the parallel lines of buildings which can only be secured by uniformity in planting. An avenue planted with American elms, with their lofty over-arching tops, is beautiful, seen as a whole, because the charm of each tree is multiplied by constant repetition, while a mixed planting on a street line has an appearance of contradiction and incongruity.

To prevent disappointment or possible failure in tree planting, the ground which is to be the home of the tree should be properly prepared, the excavation to be made for it should be liberally large, especially so where the grade of the street was cut down several feet below the natural surface, and the subsoil is not in a mechanical condition to furnish any nourishment to the roots, and if not supplied with plenty of good loam, they will linger out a sickly existence, or die outright. Trees of a variety unsuited for a locality or objectionable in any other respect should not be selected, nor should they be planted by inexperienced persons, as is done in some cities under the contract system where the planting goes to the lowest bidder. When the frontage owner is compelled to pay for trees absolutely worthless and while he is waiting for the trees to die, so much time is lost in which good trees properly selected and planted would have made substantial growth, to the delight instead of the dismay of the owner of frontage.

The pruning and trimming of street trees should be placed in competent hands, for no street tree, however, beautiful, is safe from attacks of the saw and ax in the hands of some ignorant person, who not only often destroys the symmetry of it but generally inflicts ugly raw wounds to invite the entrance of destructive fungi which cause premature death to the trees.

Tree lawns along residence streets should be made as wide as possible and the roadways narrowed to an absolute necessity for utility of their purpose (thirty or thirty-two feet is sufficient.) The trees when possible should be planted five or six feet back from the curb-line; this without any other protection would save it from being gnawed by ill-bred horses, but trees close to the sidewalk must be protected from the boy's whittling knife.

The planting of shrubbery and flowers on street lawns cannot be popularized for the reason that very few plants will do well in shaded situations, or under trees; and on account of the depredation to which they are subject to by dogs and boys along our public thorofares. Therefore, besides the planting of shade trees, our front lawn gardening should not extend beyond the sidewalk line, but what really should be encouraged is the planting of the back-yard and screening off of outbuildings.

The suburban house grounds should be treated differently. Here the planting should be done in the most informal manner and possible existing natural features or decorative creations, may to good advantage be extended so as to skirt the adjoining driveway or public highway.

The most successful suburban home in its enchanting effect, is created by judicious natural planting of trees and shrubs, and by preserving or stimulating other spontaneous growth in untamed luxuriance.

THE POSSIBILITIES OF A PLUM ORCHARD IN MINNESOTA AND DAKOTA

By O. W. Moore, Spring Valley, Minn.

The first requisition for the planting of a plum orchard is a suitable location. This should be, if possible, in moist, rich ground, sloping to the north or northeast. By utilizing said slope the trees suffer less from drought than they would on level land or a southern slope. And they are held back a little later in starting in the spring and the buds and bloom are not as liable to be caught by spring frosts. But if you haven't the above location, plant on any that you may have.

The age of the plum trees to plant is a question that planters differ widely upon. The writer prefers one-year-old whips. The meaning of whips is one year's growth from the graft, the graft not being allowed to branch but grown as a whip. After planting they should be cut back to about twenty inches or two feet from the ground, and when they start to grow keep all buds rubbed off but four or five at the top, and the planter will get a nice head or top the first summer, and his trees will be all uniform as to size. As to varieties to plant, it depends largely upon the end to be attained. If for market, the largest of our native improved sorts should be used. If for family or domestic use, size is not so essential. There are many good varieties to select from, grown thruout the state by many Minnesota nurserymen.

Plum trees should be planted not nearer than sixteen feet apart each way, and sixteen feet in the row, and the rows twenty feet apart is still better. Many readers no doubt will ask why so far apart. The answer is that plums need sunshine and a free circulation of fresh air in order to thrive at their best. If deprived of sunshine and fresh air by close planting, they do not fertilize as well at blooming time and it is a well-known fact to most fruit growers that they cannot successfully grow any kind of fruit in the shade. And plum rot is pretty sure to attack a close-planted plum orchard.

The plat for the orchard should be as near square as practical, and plant as many as from four to six different varieties. By this method the different kinds will fertilize each other, as it is a well known fact that many of our best improved native varieties are self sterile when planted alone. After planting, shallow cultivation should be kept up often enough to keep down all weeds and grass of whatsoever kind, allowing nothing to grow in the orchard but the trees and perhaps some low-growing hoed crop, and the ground should receive a good dressing of well rotted manure either in spring or fall of each year until the trees are well into bearing, after which time the land may be seeded to medium red clover and the clover cut from time to time and left on the ground as a fertilizer.

The Prunas Americana or native plum is supposed to endure the climate of the northwest anywhere this side of the Canadian line, and perhaps beyond. A word of caution may be timely here to all who contemplate purchasing plum trees, to be sure from some trustworthy source that your trees are grafted on native plum roots. Minnesota nurserymen are growing their plum trees by the above method at the present time. Should there still be those that are grafting on tender roots, the writer is not aware of the fact.

There may be readers who are inclined to deride the name, native plum. But it their true name, and we cannot change it if we would. They were here before the white man came. They are still with us, but in a very much improved form. But you may ask, how has this been brought about? It has been done largely by planting pits of the best and growing them to fruiting age. Planting the pits of the best of these seedlings and growing them until they bore fruit, which was perhaps crossed, fertilized by some good varieties growing near by. Planting pits of the best of these as before, and so on. This work has been carried forward for the last thirty-five or forty years by a few persistent, pains-taking, hopeful horticulturists that would not recognize the meaning of the word "fail." And the result of their work is that we have many native plums to-day that are worthy of cultivation. The above article does not state all that relates to the plum question. Some of the drawbacks to plum culture are barriers, curculio, plum gouger, apis or leaf louse, plum packet, plum rot and spur blight. To explain how and when to combat all of these at this writing would extend this article to unreasonable length.

NOBILITY OF SERVICE

ADDRESS BY PRESIDENT CYRUS NORTHROP AT A BANQUET GIVEN BY THE HORTICULTURAL SOCIETY OF MINNESOTA, DEC. 3, 1903.

Mr. Toastmaster, Ladies and Gentlemen—I have in the course of my life had occasion to address a great many assemblies of different kinds, and they come to me always with a certain degree of difficulty in meeting the requirements of the occasion. I think I never pondered over a coming engagement with more apprehension that I did last summer when I was called upon to give an address before the national convention of undertakers of this city. I had in my good nature granted their request to make them an address and consented to appear on that occasion and speak to the convention, but I had no idea that that convention would ever meet in Minneapolis, or if it did that I should be here at the time; but, unfortunately, I remained in the city all summer and I went to that convention, and I had a good time, but what I suffered in anticipation can be imagined only by gentlemen who are called upon to address assemblies without an opportunity for adequate preparation.

I am too young a man to have had any remembrance of those reminiscences given here to-night. I was in the state probably about the time that Brother Harrison was serving as an advance guard, so to speak, of the advancing army of civilization, and my only regret is that he did not stay in Minnesota instead of going to Nebraska and trying to sweeten up that state. If he had stayed here I have no doubt the cause of horticulture would have been advanced more than it has. I remember the first years I was here, how comparatively weak the horticultural society was, and how I admired the fidelity of the few men who were putting their hearts into it; Wyman Elliot for one, and J. S. Harris, a sweet-natured, earnest, faithful fellow, and as I look back over the years that have followed since my first experience and as I look around upon you to-night as representatives of this work, and as I see what you are accomplishing in the production of apples in this state, I am moved to say that I heartily agree with the sentiment expressed in the evening paper, that no body of men in Minnesota, of the same number of men, is doing as much for themselves and for the state of Minnesota as this body of horticulturists; and it is to me particularly delightful the enthusiasm which as individuals you have, as well as the community of interest you feel in the progress of your work. When a man plows an infinite number of acres, sows an infinite amount of seed and reaps an infinite harvest, and goes to the bank ultimately and deposits his cash, it is entirely a commercial and business operation; but when a man laboriously studies the laws of life, hybridizing, developing and creating new species, and there comes into existence a new life, so to speak, something that never was before, why it is almost like being a partner to the Almighty in creation, and I cannot help feeling that these horticulturists, as they produce one thing after another that is new, feel for the object thus produced a feeling almost akin to parental love.

Now you are doing the state of Minnesota a wonderful amount of good, and you are doing it in two or three ways. I stepped into your meeting yesterday and I heard parts of two addresses, one by Mr. Rowly and the other by Mr. Harrison. The one presented very strongly the commercial value of your work in producing the best of apples, and the other dealt with very much effectiveness upon the creation of beauty. You are doing great things in both respects; in making it possible for this state to produce what years ago it seemed impossible for it to produce. You are giving a value to this state in dollars and cents that cannot now be measured; and the other part of what you are doing—the garden work, the interest in flowers, in the creation of beauty and in creating a taste for beauty, is to be by no means underestimated. If you men do not feel it as much as you might, there are those under your roofs who do feel it; there are the wives and daughters; not perhaps those of the more intelligent men of the state like yourselves, but those whom you are trying to raise and lift up to stand on the platform you stand on and have the interest you feel. There are in all of these houses women whose souls naturally feed upon beauty and who, unless they have beauty to feed upon, will grow dull and commonplace, and the man who loves flowers and the man who makes it possible for everyone in the state to have flowers, and the man who multiplies the varieties that all tastes in the state may be gratified, is doing a beneficent and a noble work; and these old men who have grown gray in the service, and who have put their hearts into the little plants they were trying to raise and into the methods of future development of the raising of fruit, may well rejoice at the opening of this century that they have so far cleared the way that the younger men coming on will be able to complete what they have intended to do; and if there is now any doubt whatever as to the possibilities of our climate; if anyone still fears that this climate is too cold for the permanent raising of apples, I would suggest that if our whistling friend, Mr. Ellis, could be put in some of our forests during the winter the public faith in the climate of Minnesota would be greatly strengthened, as all the people would naturally suppose that entire flocks of birds had taken up their permanent residence in Minnesota because the climate was so benign. I have said in a few words what I think about the work of the Horticultural society, and now I come to my text: "The Nobility of Service."

I want to say that a selfish life is never a noble life, and I want to say that a life of unselfish service is never anything but a noble life, and that the men who are trying to do something, not for themselves, but for the good of the state and of the people who shall live here in the years to come; who, as they create a new species of fruit, are not thinking of the dollar coming into their pocket as the reward, but are thinking of the good coming to the state in which they live and to future generations of people, are the men who in a really altruistic spirit are serving in a way that is truly noble. There is no higher ideal for any man, there can be no higher ideal, than Jesus Christ, and he, leaving all the glory that he had, came into the world, not to be ministered unto, but to minister and to give himself for others; and the noblest man and the noblest woman is always the one who comes the nearest to him in the spirit of service and self-sacrifice.

SLEEPING TO DEATH

Curious African Sickness Has Already Killed 68,000 People.

New York Sun.

The American Board of Commissioners of Foreign Missions has issued a statement concerning the ravages of the strange epidemic known as the "sleeping sickness" now prevalent in certain parts of Africa. Nothwithstanding all efforts on the part of the British authorities, there is no abatement in the ravages of the disease in Uganda.

It appeared there between two and three years ago, probably coming from the Congo. No less than 68,000 persons have died of it, 10,000 within the last five months. A commission sent from England, headed by Colonel Bruce, has decided that the disease is scattered by a fly called kivu, but no antidote has yet been discovered. Another commission is said to be in prospect to see what can be done to prevent the spread of the plague. Segregation seems impossible and no relief is in sight.

The first symptoms of the presence of the disease is headache, with swelling of the glands of the neck, followed by protracted sleeping on the part of the patient. The disease runs its course in from six weeks to two years.