

WANT OF A  
BOTANICAL GARDEN IN NEW YORK

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Remarks of Ex-Chief Justice

CHAS. P. DALY,

AT A

Meeting held on May 19th, 1891,

TO TAKE ACTION UNDER THE LAW ENACTED BY  
THE LEGISLATURE FOR THE ESTABLISHMENT  
OF A BOTANICAL GARDEN IN THE  
CITY OF NEW YORK.

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BOTANICAL  
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REMARKS  
OF  
EX-CHIEF JUSTICE DALY.

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The necessity of a botanical garden in the City of New York may be presented from two points of view.

1, Its scientific importance and utility for the development, improvement and preservation of the vegetable kingdom, and 2, Its value as a place of recreation and instruction for all classes of the people, and especially for the working classes, who have little leisure for recreation, and whose means do not admit of their indulging in much expense.

The scientific value and utility of such an institution cannot be too strongly stated. We depend upon the vegetable kingdom for the food of man and of animals; for the wood devoted to such a variety of uses and employed in so many handicrafts; for the textile fabrics that are required for clothing and other purposes, and for the plants upon which we depend so largely for the cure of diseases. Whatever, therefore, tends to preserve it, to increase its products and their adaptation to the use of mankind, is of the highest utility, and it is for this service that botanical gardens are required.

There is not a plant that grows that has not its use for man, if he can discover it, and it is to such discoverers in the past that we owe largely our present civilization and the benefits it confers. We are indebted to the monks of the middle ages for the preservation not only, but also for the knowledge of the uses of many of the important plants upon which we now depend for food and for other purposes. Attached to each monastery was a farm, and generally a large one, in which all, from the abbot downward, performed the manual labor requisite for its cultivation, by which the monks maintained their bodies in health, and produced, not only what was necessary for their own support, but what enabled them from their abundance to be liberal to the poor. I speak of the orders then largely distributed over Europe that connected land cultivation with the religious life, such as the Cistercians, Carthusians and others, to whom, not only their own age, but posterity, is deeply indebted. They generally established their monasteries in desert and barren places, which they made productive by their physical labor and their intelligence. Loudon, in his work on botany, says that without the labor of these farmer-monks, many provinces of Europe which at present nourish thousands of inhabitants would have remained deserts and marshes, the resorts only of wild beasts and the sources of disease, and that gardening as one of the arts of design, instead of being, as it is now, generally diffused, would have been lost to the

greater part of Europe. They had large orchards for the raising of fruit, and either within the monastic enclosure, or annexed to it, a large garden for the cultivation of flowers, vines and the higher plants that are useful in medicine; gardens which served alike as a place of recreation and for the careful study of plant life as well as the making of experiments, to which from their secluded lives they were enabled to devote the necessary time.

In addition to this, those of the brethren that went out as missionaries to pagan lands, being from their previous occupation more or less of botanists, were close observers of the vegetation of the countries through which they passed, especially in the then imperfectly known parts of Asia and northern Africa, and when they found anything that was new to them which they considered interesting or useful and which they thought capable of being cultivated in Europe, they brought back with them seeds or specimens to be planted in gardens of their own institution or at some other monastic establishment where the atmospheric conditions were favorable, and in this way many of the best varieties of fruit, especially of apples and pears, were introduced into Europe.

They did even more. They imparted the knowledge they had acquired by their own experiments or obtained from distant lands to the peasantry and agricultural classes in their vicinity by making them acquainted with new plants that could be raised for

food, and with better methods of cultivation, and how great their influence throughout Europe was at a time when, by four centuries of continuous and desolating wars, its ancient civilization had been swept away and it had been reduced almost to a state of semi-barbarism, may be inferred from the fact that the Cistercian monks had more than one hundred of these establishments, or as I may appropriately call them botanic gardens, in England alone.

Important as these establishments were at that period, they are not less important now in consequence of the increased population of the globe. In my youth the population of the earth was computed to be 700 millions. It is now, that is, it was in 1890, estimated at 1,487 millions, and statisticians say that if it should increase hereafter at the same rate that it has since the time of Marlborough, in the reign of Queen Anne, it will be in 182 years from the present time, 5,997 millions. One hundred and eighty-two years is a comparatively short period in the history of mankind, and the question arises whether the Earth, at the expiration of that time, will be able to supply such a population with food, raiment and fuel. The statisticians say that it will, if more efficient means are used for preserving the animal and vegetable kingdom, and one obvious means of doing so is the establishment of botanical gardens, where the nature, growth, diseases, development and distribution of plants can be care-

fully studied by men thoroughly trained, from the scientific principal and his assistants to the lowest subordinate; men who practically devote their lives to this service.

In every country in Europe, and in France, Germany and Holland in nearly every town, there is a botanic garden; whilst in North America, with a population of 89 millions, 60 millions of which are in the United States, there is but one botanic garden worthy of the name, the one established in St. Louis by the gift of the late Mr. Shaw. Not only in Europe but in countries where nature is exceptionally prolific both in the abundance and in the variety of its vegetable products, such gardens are regarded as necessary and have been established in Mexico, in Brazil, in Sumatra and in Borneo. Are we so favored as to make them unnecessary in North America? Allow me to call your attention to what Mr. Ravenstien says, in 1890, of the North American continents, in estimating the number of people that the earth will support: "Agriculture is there," he says, "carried on in a wasteful style, the cultivator looking only to immediate returns, and having no thought of the prosperity of his descendants. If you travel from Montreal to Washington you pass millions of acres of land once most productive, but which now produce nothing, the forests having been devastated in the most reckless way; swamps and sandy places now take the place of trees. This will be mended in the course of time. The exhaus-

ted soil of the Eastern States will recover, and forests where they have been wantonly destroyed will be replanted," adding: "that as the population increases, the resources of the country will be more carefully husbanded, and it is for that work now that botanical gardens are so necessary, for not only are forests destroyed, but the most useful species of plants, as I have said, perish from neglect, wanton destruction, climatic changes and other causes. One or two illustrations will suffice to show how botanical gardens arrest and prevent this. The cinchona tree, from which we get the quinine, so indispensable both as a preventive and for the cure of the malarious fevers which exist so extensively over the globe, was found only in Peru, and, from the great demand for it, the trees were so wantonly destroyed that there was serious apprehension of its total extinction in a very short time. Dr. Hooker, of the botanical gardens at Kew, near London, induced a very capable gentleman, Mr. Clements M. Markham, to go to Peru, and study the climateric conditions essential to the growth of the tree, that it might be transplanted to other parts of the earth where the same favorable conditions exist. Mr. Markham carefully studied the subject and brought back with him a number of young trees, which were carefully nursed at Kew. It was then determined that a certain part of India would be favorable, to which they were sent and planted. The experiment proved successful and there are now



five millions of these trees growing in India. In the same way Ipecacuanha was saved from perishing by finding a new home for it in Singapore.

The coffee plant in India suffered from the fungoid pest, and in the West Indies from the voluta fly. It was found by experiments at Kew that it could be grown in Liberia, free from those pests, and the Liberian coffee is now a prominent article of commerce.

It would take more time than the brief space of my remarks will admit to show what has been accomplished in Kew and other great establishments of the kind in studying the causes injurious to vegetation and the way to avert them; of the atmospheric conditions essential to the growth of plants, and where those conditions can be found in different parts of the globe, and of the experiments that have been carried on, and the successful and important results that have followed. What I have said, I think, will suffice to show the scientific value and utility of a botanic garden of the kind I have stated, particularly in this, the largest city of the Union.

I will now say a few words respecting its value as a place of public recreation for the numerous class here that live by their daily labor, a class whose opportunities for enjoyment are very limited, having, as I have said, little leisure, and little means beyond what is necessary for their support. They constitute the greater part of the community, and whose contentment with their lot is of the highest

importance to the maintenance of public order. It is especially so at this period, when we hear so much about the conflict between capital and labor, of the hostility to the building up of colossal fortunes, and the keeping and transmitting them without doing any thing for the public welfare, or for the working classes, whose labor made the making of them possible; the loud complaint of the anarchist of the inequality between the rich and the poor, and the remedy which he advocates—an appeal to force—to rectify it, the antidote to which is the willingness of the rich to devote a portion of their wealth in loving consideration of what may promote the welfare and add to the enjoyment of their less fortunate fellow-citizens. A great botanical garden in this large metropolis would accomplish a great deal in this way. The poorest man can enjoy what it offers as much as the richest. He sees there what is brought together from many lands, which he could not see without that extensive travel for which he has neither the leisure nor the means; and how much this recreation is enjoyed by all classes is sufficiently shown by the fact that the number of persons that visited the gardens at Kew in 1890 was over 800,000, or about one-fourth of the entire population of London.

In the ordering of our lives, recreation and amusement is as necessary to our well-being as labor. "He that would make a good use of his life," says Locke, "must allow a portion of it to recreation."

“Recreation,” says Bishop Hall, “is to the mind what whetting is to the scythe: it sharpens the edge of it. He, however, who spends his whole life in recreation is ever whetting and never mowing, and he that toils and never recreates, is ever mowing and might as well have no scythe as no edge.”

The public interest that is felt in what a great botanical garden affords may be illustrated by flowers alone. According to a recent article in the *New York Herald*, flower-raising in this country, as a business, a quarter of a century ago was comparatively insignificant, and there are now 5,000 establishments engaged in raising plants and flowers; more than 300 of which are owned by women. Forty million dollars is invested as capital in this industry, and more than 20,000 persons are employed. The value of this product by the last census was \$26,000,000—\$12,000,000 for shrubs, \$14,000,000 for cut flowers, and of these there were more than 50,000,000 of roses. These establishments now exist in every State of the Union. There are 800 in the State of New York alone. There was not in the year 1880 fifty flower stores in the City of New York. There are now 250, to which I may add the significant fact stated by the Census Bureau that the love of flowers in this country is growing among all classes, the poor as well as the rich. An English writer has said “the cultivation of flowers is of all the amusements of mankind, the one to be selected as the most innocent and the most devoid of

injury or annoyance to others; the pleasure it imparts is harmless and pure; it is one in which the poor may indulge as well as the rich, and that affords an unceasing source of enjoyment, without emulation, contention or ill-will," to which I may add, we give flowers to the bride, for they are the loveliest type of marriage; we lay them on the coffin as the most touching emblem of death, and we find in their decay and their renewal a symbol of the resurrection.

Mary Howitt, in one of the most felicitous of her poems, answers the question, What is the use of the flowers? and with her lines I will close my remarks:

Our outward life requires them not,  
 Why, therefore, had they birth—  
 To minister delight to man  
 And beautify the earth?  
 To comfort man, to whisper hope  
 Whene'er his faith is dim,  
 For who so careth for the flowers  
 Will care much more for him.

