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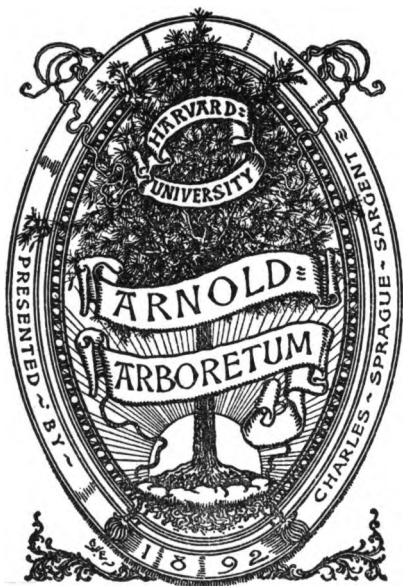
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THE DEVELOPMENT
OF
GOLDEN GATE PARK

AND PARTICULARLY

The Management and Thinning of Its
Forest Tree Plantations.

A STATEMENT

FROM THE

BOARD OF PARK COMMISSIONERS,

TOGETHER WITH REPORTS FROM MESSRS

WM. HAM. HALL, CONSULTING CIVIL ENGINEER,
FRED. LAW OLMSTED, LANDSCAPE ARCHITECT, and
JOHN McLAREN, LANDSCAPE GARDENER.

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Board of Park Commissioners.

R. P. HAMMOND, JR., CHAIRMAN,
WM. H. DIMOND,
JOSEPH AUSTIN.

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A STATEMENT FROM THE PARK COMMISSION.

OFFICE OF THE PARK COMMISSIONERS, }
SAN FRANCISCO, Oct. 16th, 1886. }

In view of the importance of the subject, and the interest which has of late been taken in it, the Board of Park Commissioners consider it proper to make this statement, and give publicity to the accompanying reports.

On entering upon their duty in May of the present year, after examination and upon taking advice which they considered perfectly competent, they became well satisfied that the trees composing the older groups, belts, and masses on Golden Gate Park were suffering from overcrowding—were, in fact, going backward in the scale of usefulness, and that many were destined to die, and the groups to lose character, if not relieved by thinning.

Examining the early reports, on which the improvement and plantation of this place were based, it was seen that the intention of the designer was that trees should be cut away as soon as they began to interfere with each other, and that very, very many more trees had been planted than it was intended or thought possible to permanently occupy the spaces covered by the plantations.

Inquiring as to the past of later date, the Commission found that their predecessors had been deterred from carrying on this work of attention to the forest growth, because of lack of funds for the purpose, and the continual demand that money be expended for show and present enjoyment.

Impressed with the gravity of the situation, continually

growing worse, and just now, as regards the older and most noticeable plantations, in a most critical stage, this Commission made an appeal to the honorable Board of Supervisors, for funds to be devoted specially to the relief and betterment of the permanent forest growths in their charge.

This appeal was answered by an appropriation of \$5,500 from the municipal surplus fund of 1885-'6, for our use, as explained to be so very necessary. The work was commenced, but attracted undue attention and elicited comment which the Commission believes to have been based upon misunderstanding of the situation and of its purpose.

Realizing to the fullest extent the fact that they are but the servants of the public, and that our Park is a property of the public, in which each individual properly takes a great and active interest, they felt it incumbent on them to have this subject well examined and explained.

To this end, they called upon Mr. Wm. Ham. Hall, State Engineer, and their consulting engineer, for his report in writing. It is to be remembered that Mr. Hall was the designer, as landscape architect and engineer, of this Park, and that he virtually built it, and planted the older plantations now desired to be placed under treatment.

His report, under date of Sept. 1st, 1886, has been received, and is herewith presented.

Most opportunely, the Commission heard about this time of the coming of Mr. Fred Law Olmsted, than whom no one is greater in the art of landscape architecture and the management of park developments. This gentleman has now been with us, and has quite carefully, and with much kindly interest, examined our Golden Gate Park. He speaks with an authority based on almost world-wide experience and observation, and with a generally recognized reputation as the head of his profession in America.

To more fully set Mr. Olmsted's status before San Franciscans generally, we here insert an article taken from the "San Francisco Bulletin" of the 4th inst.

"PARK OBSERVATIONS."

"FRED LAW OLMSTED, THE LANDSCAPE ARCHITECT, TAKES A VIEW OF GOLDEN GATE PARK RESERVATION."

"There has been in California for near a month past, a gentleman whose name is familiar as household words to the good and solid people of New England, and the Eastern States generally, and to whom is attached an enviable reputation over a good portion of the well civilized world. This is Fred. Law Olmsted, who, at the invitation of Senator Stanford, crossed the continent to advise and plan with our benevolent Californian upon matters connected with the designs for the proposed University grounds, buildings, and village. Mr. Olmsted ranks first among American landscape architects, and has a high reputation as a man of taste and wide practical experience in the laying out and improvement of parks, suburban towns, and rural neighborhoods. Indeed, he is the creator of the art of landscape architecture in America. He was the designer and original constructor of New York Central Park, Brooklyn Prospect Park, the Buffalo Park, and a large number of other notable grounds of similar character. He is now in general charge of the works of the Boston Park Commission, which is just commencing construction of the large new Franklin Park; and he is in advisory charge of a number of Eastern public grounds, those of the National Capital among the number.

"His duty in generally advising Mr. Stanford having been completed, Mr. Olmsted is now on his way back to his labors East; but it is understood that he has made an examination of Golden Gate Park, and will soon write to our Park Commission a letter of advice concerning important points in its improvement and management. He has expressed himself as astonished at the favorable development he has found at our Park, and thinks that we have every reason to hope for very interesting and satisfactory results from the Park work. Senator Stanford has done well in securing the advice of one so experienced and tasteful, and our Park Commission is fortunate in the prospect of some good advice from the leading authority on landscape architecture."

To Mr. Olmsted's letter, this Commission next asks attention. It is a thoughtful document, which the Commissioners, in common with our esteemed evening journal, fully appreciate the value of, and by which they will be guided in the hope of doing good service to their constituents.

In the mean time, it seemed to the Commission advisable that they should have also the opinion of some distinctly practical, able, and altogether disinterested local authority on forest tree culture and the development of large ornamental grounds. To this end, the kindly services of Mr. John McLaren, landscape gardener, were called in to examine and report on the plantations. Mr. McLaren is a gardener, practically educated at the Edinburgh Botanical Gardens, and a number other large grounds in Scotland. He has for a number of years had charge of the best developed large private park ground in California, and has therein had experience in just such plantations as we are trying to perfect at the Park. And he is one who has studied practically and daily the subject of park growths in many of the best places in the State. His report on our charge is also annexed.

In view of the concurrence of opinion by these authorities, sustaining the Commission in its efforts to save the young forests and tree groups of Golden Gate Park, the Commission has decided to go on with its work of thinning them as begun, and hopes that it will be understood and sustained in so doing.

In order that it may generally be understood in the future that the Commission is, in the technical affairs of its work, acting with the advice of some one competent to advise in this particular line of work, there are appended hereto also extracts from certain letters, written years ago by Mr. Olmsted, which were placed on file by the Board in 1876, but have never before been brought to public notice.

Respectfully presented,

R. P. HAMMOND, JR.,

WM. H. DIMOND,

JOSEPH AUSTIN,

Commissioners.

REPORT OF WM. HAM. HALL,

Consulting Engineer.

SAN FRANCISCO, Sept. 1st, 1886.

*The Honorable Board of Park Commissioners,
San Francisco, Cal.*

GENTLEMEN:—Your attention has heretofore been called, in a general way, to the conditions of the tree plantations at Golden Gate Park; but in view of the fact that there is much in this connection which seems not to be understood in some quarters, and that a proper appreciation thereof upon the part of all is much to be desired, the present memorandum is submitted for your consideration and disposal.

Under the circumstances, it will not be unbecoming in me to recall to mind some facts related to my former duty on this Park, tending to show that I do not approach the subject as a novice, or speak without authority on the special work in hand.

The improvement of the Park grounds became a subject of systematic study, with the undersigned, full seventeen years ago. The plan was designed and placed upon the ground by me. For nearly seven years I had its development in charge as engineer, landscape architect, and superintendent. All of the principal, and in the aggregate, full five-sixths of the existing drives, were built and completed under my care. The body of the heavy grading which shaped the grounds for occupation, and which is now unseen and unappreciated, was done by my guidance. The drifting sands were all successfully reclaimed to the first stage of the work, by the use of native and imported plants, and a considerable area set out in trees and the beach-grass, following my study of the subject and by my labors. The older tree and shrub plantations, in the more finished grounds, which now have attained size to afford efficient protection from the driving winds, and be specially noticeable in the landscapes, were set out in accordance

with my thought and under my direction. In other words, the foundation of the Park of today was laid by me, and much of the superstructure was erected under my supervision.

In saying these things, I do not mean to detract from credit justly due those who have succeeded to its management. Most of the ornamental flower-bed work which now shows so beautifully, and a vast amount of tree and other plantation work which in due time will grow into prominent notice and usefulness, and the construction of many of the foot walks and of some parts of the drives, have since been carried out under others' superintendence. Reference is made to my labors on these grounds, only as a reminder that I know that of which this memorandum treats—the theory of the design and plantation of the place.

The selection of the present Park site was made in the face of bitter opposition. It was generally believed and repeatedly urged by a good portion of the local press, that an attempt to build and maintain a Park on the dry sands and brush-covered hillocks which composed the site, would prove a costly failure. Powerful and winning pens, whose ink has within the past decade flowed in gratulation at the results attained and to be expected on Golden Gate Park, were within the ten years before busily engaged in denouncing the selection of the place for the purpose—declaring that no Park could be built there, and no verdure maintained, at any cost which the city could afford. The Presidio reservation was spoken of as the only place which could be had, whose soils were suitable for the great city Park of San Francisco, and Congress was to be petitioned to grant it to municipality for the purpose. Other propositions were made to obtain a location in the southern part of the city, and almost every other place seemed to receive more favorable notice than that selected. As a matter of fact, the selection has proved, and will continue, as time rolls on, to prove, a wise one. The sands afford a warmth essential in a Park for San Francisco, which a clay soil would have rendered impossible to attain. The surface of the Presidio reservation is all clay or closely underlaid by clay, and so was every other site spoken of except that selected. The sandy site has been handled at

one-half the expense which a clay location would have cost. The result speaks for itself.

The theory of this whole improvement was clustered around the ideas of "repose," and "warmth, and "enlivenment." To attain these in our peculiar climate, without sacrificing breadth of treatment, and that ample accommodation necessary to meet the growing demands of a great city, and to make a park-like effect by simple and inexpensive means, was the subject of seven years' thought and work on my part, aided by a correspondence with specialists abroad, and by every account and illustration of experience elsewhere which could be collected.

The forestry and landscape architecture of the place was particularly the subject of consideration. What was the nature of the landscapes which could be produced and maintained under the circumstances, at reasonable cost? What the character of verdure with which the place should be clothed, and what its general plan of disposition to effect the leading ends desired? These were the ideas and questions which led the thought and guided the work, in originally laying out and planting the Golden Gate Park.

It was designed that the six hundred or more acres of the reservation including and lying west of Strawberry Hill, and its connected ridge, should be simply treated as a woodland or forest, with all the hills and ridges more or less heavily timbered, and the valleys covered with lower-growing shrubs or field grasses; that the four hundred or less acres east of the hill and ridge should be treated as a more finished Park, with its tree plantations in smaller masses or groups, principally on the higher grounds, and its several notable valleys occupied by such special features as a picnic ground; a garden—including a conservatory and semi-tropical exhibit; a children's quarter—including a dairy-house and play-grounds; a recreation ground for sports of older people; a lawn, with lake and water terrace; a manor house and grounds, with concourses for carriages and pedestrians; and an open air concert auditorium; and finally, that the avenue of approach—for it is three-fourths of a mile from Baker to Stanyan Street—should afford a means of getting to the Park against the direction of the wind, without fully encountering its driving force.

Simplicity of design and economy of construction, improvement, and maintenance, were ever held in view. I was early warned from an experienced source, and confirmed the lesson by observation, that it was an easy matter to make a great garden and lawn of the Park by the expenditure of sufficient money, but that it would cost enormously to maintain such a place, and that the most desirable ends of "repose" and "warmth" were chiefly to be obtained by simpler means; namely, a judicious shaping of the grounds, a sheltered location of roads and walks, a skillful disposition of trees and shrubbery, and the maintenance of a green covering to the ground without constant watering.

Thus, the plantation work was carried out always with a distinct purpose in mind; and there was no haphazard work about it, although much was done of an experimental nature, and all with a sustained, tentative policy, and watchful regard for partial results, as affecting current action.

The planting of trees was done in the expectation that full twenty-five per cent. might fail to grow, because there was no local experience under similar conditions to guide on the point, and it was not known what facilities there would be from year to year to care for the plantations.

The adaptability of different kinds of trees, in our climate to the special objects in view at particular points, was not fully known, and in order that landscape effect, as well as utility and thriftiness, might be consulted in afterwards thinning the groups, many more in variety as well in number were planted, in leading groups, than it was desired and intended should afterwards stand therein.

Still again, to produce a pleasing effect of verdure as soon as possible, trees were planted much closer together than it was intended they should stand, and than was required, because of other reasons before given, and than future healthful growth would admit of as a permanent placing.

With this view, certain quick-growing and hardy evergreen trees were planted in many places, to serve as shrubs—in the foreground of intended tree groups—to cover the ground temporarily, and give an appearance of shrubbery, in the absence of proper spreading plants for the purpose.

And, finally, to afford mutual protection against the driving winds, and the sooner to produce effectual wind-breaks to shelter the roads and walks, the trees were grouped in larger masses, and placed in far greater number within each group, than would otherwise have been done.

In fine, I say that during the first six years of planting on the Golden Gate Park, full four times as many trees were set out as should, to produce well formed and thrifty trees, and permanent plantations, occupy the spaces covered by the groups and belts. And this was done deliberately, and for the reasons heretofore given; and it was good policy, and necessary so to do, for the same reasons, and others collateral, but not necessary at this time to review. Furthermore, I am prepared to show that this practice of planting thick, and afterwards thinning as the young trees commence to interfere with each other, in varied degrees, is a universal custom in the cultivation of forest growths, where systematically done, whether the object be that of business enterprise, of landscape improvement, or of growing belts or groups, to afford protection from winds. This subject is one full of long, varied, and systematic experiences, the results of which constitute a body of professional knowledge not to be ignored in the improvement of the Golden Gate Park.

European foresting accounts show that from 30 to 60 per cent. of trees planted are cut out from the time they reach the size of fish poles to that of five to six inches in diameter, and twenty-five to forty feet in height; and this is done not for the timber produced by the cutting, but as a sanitary measure—in the interest of health, vigor, and rapid and complete growth of those trees left standing to constitute the forest. In such cultivations there are the first, second, and, sometimes, third and fourth thinnings of the young plantations; in which processes the weaker and least desirable trees are taken, where the growth is too thick for strength and health to all. Afterwards—when the woods, as a whole, are fully grown, and the final cutting commences—the larger and more mature trees are at first selected, and the slender ones are given another series of years for development to the commercial standard.

In the plantation of parks there are as reasons for the thick-setting of trees with the view of subsequent thinning out, not only those objects which govern in ordinary forestry, but those also, which are sought to be attained as essential to park-like effect and early development to a condition for use as a park, and to a state where ultimate landscape effect can be studied in making the thinnings. All these considerations have had potent influence in the improvement of modern parks. It is on record in printed form, and I have corroboration by correspondence with those specially skilled and in charge of the works, that hundreds of thousands of trees have been removed from the plantations of the Parks of New York, Brooklyn, Philadelphia, Baltimore, and other eastern cities, in the course and for the purposes hereinbefore mentioned.

Furthermore, we do not have to go beyond the limits of our own State to find extended and successful applications of these rules of plantation. In the adjoining county of San Mateo, for instance, are many examples of grounds where, to save and fully develop large plantations of trees set for landscape purposes, more than half the number have been cut out within ten to twelve years after planting; and the testimony of those in charge of such places, as well as the evidence of contrasting results, is overwhelmingly in favor of the necessity of thinning at the right times. The Golden Gate Park itself affords ample lessons on this point for those who are willing to learn. A few groups of trees which were thinned out in 1876, by my direction, now present thoroughly healthful, vigorous, well-branched, well-rooted, and well-formed trees—in striking contrast to the greater portion of the older plantations, as hereafter described.

How is it with our Golden Gate Park as a whole? Has the complete system of forest and wooding development, originally marked out for it, been adhered to? I answer that it has not, and that its older tree plantations are now in an abominable condition, and, with a few notable exceptions, as a whole, are rapidly deteriorating for the purposes intended and desirable; many of the principal groups are gone almost past redemption, and the younger plantations are fast getting in the same state,

and all because the necessary thinning has not from time to time, during the past ten years, been attended to. I say this not as a reflection on those who have had the place in charge, for I am told that had means been at command during the last past administration, the effort would have been made to prevent this evil; and I know that during preceding administrations some of the necessary work was attempted, and much more would have been done, but for the manifestation of opposition to cutting any trees, which, though doubtless prompted by motives in the public interest, came from a source not versed in the practice of forestry and park construction.

Now we have at Golden Gate Park trees whose natural habits would produce heads of foliage twenty-five to thirty-five feet across, near the ground, at ten to fourteen years of age, and which were planted four to eight feet apart, in 1871 to 1876, with the view of gradually cutting out full two-thirds of the number within the years down to this time, still standing in the groups as planted—spindling, bare-stalked saplings within the groups, and one sided shams around the margins thereof—in many cases not a healthy, well-developed specimen in the whole group. In this respect, the main large clumps of the older trees at the Park are rotten shams, whose period of usefulness as desirable objects in the landscapes, and as protectors from the driving winds, is well near ended; and which, in a few years, because the individual trees are spindling, weak, and light-rooted, and with foliage and branches high up on the trunks only, will commence to blow down, wholesale, before the blasts and storms of winter. The overcrowding of the trees in the group, keeping out light and air, has forced a weak upward growth, and has killed off all lateral branches within the groups, and has left a healthy branching and foliage on one side only of the trees around the margins.

This account relates to the tree plantations throughout the Avenue leading to the Park, but especially to the older and more noticeable plantations, with some few exceptions, in the eastern and more frequented part of the grounds.

Throughout these parts of the Park are forest trees, of kinds whose branches should be encouraged to grow and spread,

from the ground, laterally, to their utmost extent, which should never be trimmed off or shortened in, standing now on the very edges of roads and walks, and there necessarily shorn of their beauty and character by the pruning hook, shears, or axe, because their spread was absolutely obstructing the passage ways. These trees were never intended to stand permanently in such places. They were planted thus as shelter to others behind, and should have been taken out some years ago when the proper time came, and before those in the rear and intended to be permanent had lost their foliage and vigor from overcrowding.

There are thousands of trees in the older plantations of this Park, which are serving no other purpose than to kill off or ruin others, and which should be cut out.

The newer plantations have been made in the manner of those set out in the early park work; and if now properly taken in hand, the lamentable condition into which the older groups have fallen may be warded off for these younger ones.

Thus, the work which should now be undertaken in the tree plantations of the Park is, in the older groups, one of relief and repair, and in the newer plantations one of simple prevention—profiting by the experience so dearly bought.

It is proposed to try to prevent the older plantations of pines and cypress from further smothering the individual trees of which they are composed, and in this way to prevent the further loss of lower limbs, and to promote a more vigorous growth of the best trees. To this end it is proposed to cut out the weaker trees, particularly within the groups, to clean out the dead and dying foliage and branches, to clear away trees which, by their nature, are out of place in the foregrounds of groups, and thus to let light and air in to the individual and important trees. Having cleared away the rubbish and superfluous trees, it is proposed in suitable cases to try to rehabilitate the groups as masses of verdure springing from the ground, by planting at proper distances from them small groups of lower growing shrubs and plants, as was done in 1875 and 1876, in the case of some groups near the park lodge, and which now present a comparatively attractive appearance.

It is not intended to cut out any trees or foliage which now seem to be necessary for protection from the driving winds, except at limited localities, where the condition of the plantations is so abominably bad, and hastening to early decay and uselessness, that a very small amount of foresight prompts action to save some part of the group, and to reform it with younger plants at the earliest time practicable.

It is not intended to denude any trees of their lower branches, and thus apparently open up a space for the sweep of winds, except where such branches are dead or absolutely dying, or where it may be necessary for the health of trees.

It is not intended to destroy any tree or branch which, with any reasonable degree of foresight, can be saved and made to serve a good purpose; and to this end it is intended to give the benefit of any reasonable doubt in retaining that which has grown, and to go over the grounds several times before completing any one portion.

In the newer plantations it is intended to go forward with the work of thinning gradually, selecting the weaker growing plants first, and cutting out those only which have commenced to interfere with their neighbors.

To the uninitiated, even this careful work may in some cases seem, at first glance, a rough handling of precious trees; but to any intelligent, unprejudiced person, who will carefully watch the operation, patiently learn the object in view, and the means proposed for the accomplishment in each case, and investigate the subject with no other experience, even, than that so plainly apparent in this Park itself, the conclusion will be in hearty support of the work.

The work of thinning the older plantations commenced some weeks ago on the south side of the Avenue, or approach to the Park. There were in this locality full twice as many trees as could occupy the space and remain healthy, much less develop to well formed, strong rooted, vigorous and permanent trees. The lower branches of most of them were dead or dying. Many of the trees themselves were in a sickly condition, and not making vigorous growth.

Through this plantation of between 800 and 900 trees the

dead wood has been cleaned out and the poorest trees cut away to the number of less than one tree in ten of those composing the groups. It is not a fact that some of the best trees were cut away. The work was carefully done, and held far within the margin of actual necessity in the locality. It will be necessary to go through these plantations again in the spring. This is the work which has been criticised as a ruthless cutting away of valuable trees.

Attention is asked to the condition of the corresponding plantations on the north side of the Avenue, as viewed by going on foot into and through the individual groups. They are, as heretofore described, immeasurably over-crowded, killing each other out, and together forming a jungle of dead under-branches only hid by a fringe of verdure around the edges. To leave them in this condition is the height of absurdity, and constitutes the most flagrant neglect, which the public would regard as little short of criminal breach of trust on your part, if the subject were generally understood.

As it is, the first effect of thinning these groups will be to expose to view bare trunks and trees which have lost their verdure on one side from crowding by others. It is not your fault that you have thus to open out the unsightly interiors of these groups, that you have to cut out trees of fourteen years of age, which should have been removed between the ages of six and ten years. It is not your fault that those remaining are bare-stalked and one-sided. But it will be your fault if you fail to do now the best that can be done with these neglected plantations, and it results that they are blowing down and not worth trying to save a few years hence.

Attention is specially asked to the plantation which stands around the head of Conservatory Valley, behind the music stand and now protects it from the winds. It is plain to any intelligent observer that these trees are excessively over-crowded, are, in consequence, losing their lower branches, are spindling up as slender, weak poles, and that in a few years they will afford no protection to the place, and will kill each other out for want of air and soil-space. It took six years of growth in the virgin soil to rear that group of pines high enough to pro-

tect this valley. It should have been thinned gradually from that time on, so as to preserve a vigorous growth of lower branches. This has not been done. The trees are scarcely worth saving. To clean out the dead wood now and thin the group, will result in letting the wind through, and possibly in the blowing over of some remaining trees. Moreover, the soil is impoverished by its over-crop of pines.

This is the condition of things in many places on these grounds. A very careful and sustained effort is required for some years in the future to prevent a decided deterioration in what seems now to be the more highly improved parts.

It is not the intention in this work to open up the grounds for costly or ornamental improvement. The motive of economy is the leading thought in promoting it. The desire is to save trees, and have them continue to afford the glad relief to the eye, and grateful protection from the winds, for which they were planted; and the methods employed in the work are neither merely theoretical nor blind experiments, but are well tried, thoroughly understood, and amply justified by world-wide practice both in forest and park grounds.

The prejudice against attempting the improvement of Golden Gate Park extended down to a period several years after the work began. At the time of the inauguration of work, there was a fusilade directed at the management, and delay was desired, and experiment demanded to test the probable success of growing anything on the site. It is even a fact that two of the three original Commissioners were loth to accept the responsibility of the attempt, and it was upon the favorable report of the undersigned, following a careful investigation of the whole subject, that the first bonds were sold, and the work went on.

When the work of grading was to be begun, there was a proposition strongly urged by outside influences, and seriously entertained, to grade off the place to a plane, like a public square, and run straight avenues athwart it, thus destroying all semblance of natural configuration, and all possibility of rural and true park-like effect. The Avenue leading up to the Park was to be laid out as two parallel streets, with rows of

trees and a walk on each side, and a grass plat in the middle, thus opening a straight funnel for the sweep of the winds, and but adding number to the city's dusty streets, instead of, as now, affording, by its curved road and grouped plantations, a comparatively sheltered approach to the main grounds.

On the other hand, when after the present plan had been adopted, and the work of grading was in progress, the idea was practically developed of retaining the general topographical configuration of the place, and planning to it—opening up reasonably direct lines of communication from valley to valley, by partially cutting away intervening hills, where absolutely necessary so to do, and filling up unsightly hollows to give a breadth of effect, and secure open spaces of reasonable size for lawns, meadows, and concourses—the cry went up that the face of nature was being ruthlessly destroyed, and money being uselessly expended. At the same time, and from the same sources came a protest against making the roads so wide. A committee of a certain society, professing special knowledge of such matters, was appointed to investigate the matter. Its report condemned the extravagance of roads over thirty feet in width, and recommended that they be fitted to the ground just as it was—without material cutting away of hillocks or filling of hollows. A portion of the press took the matter up, and commented most unfavorably upon the work going on. The result shows that had the gratuitous suggestions offered been taken, we would now have a place akin to a contracted beer garden in plan, and in no way affording the space and relief which the Park of today presents, much less the broad landscape effects which are being developed there.

When it was proposed to reclaim the drifting sands simply by a process of cultivation upon them, the idea was denounced as fallacious and mere "theory." It was asserted that the hills would have to be, in a measure, graded down, and the whole covered with a layer of clay to prevent drifting of the sands; that even then all plants set out would have to be watered; that the entire area of the sand drift, including outside private property, would have to be improved at the same time, to prevent the Park works from being covered in by sands

drifting from the sides; and, finally, that before anything could be done, there would have to be a great seawall of stone built along the beach, down at the line of low tide, to prevent the whole improvement being swallowed up, as fast as made, by the in-coming of additional sands from the sea. The observations and investigations which led to the adoption of the methods of reclamation, afterwards so successful on these sands, were made by the undersigned without authorization from any one of the Commission; and the experimental plantation of a few acres, which demonstrated that the first object of arresting the drift could be cheaply accomplished by simply sowing mixed barley and lupin seeds, was made with the approval of only one of the Board, and was not publicly spoken of until after its success had been assured, because there were those in the city who opposed every move that looked like spending any money, or that they themselves did not understand and believe in.

These reminiscences are here recounted to remind you that it has not been without misunderstanding and opposition that the Golden Gate Park improvement has been brought even thus far on its way to completion. There are always those who, looking only upon the surface of such subjects, want to let alone all that appears to be well enough for the time being. The conductor of public works is the employee of every member of the commonwealth, and the constructor of a Park is very generally thought to be simply making a large "garden" for each inhabitant of the city.

In the opinion of many persons, it is natural for every one to know best how his garden should be made and managed; it is natural for every body who has seen a forest to know how forests are grown and cared for; it is natural for every one who has been to Europe, and ridden through the old parks there, to know just how they were developed, and, consequently, how to make and grow a park here; it is natural for every one who has experience in planning and growing a home garden to know how to lay out and develop a great park. And there is no greater truth than that the most skillfully developed park, to the appreciation of

very many persons, speaks least for its architect, because all the best results seem as by *nature* designed and grown, and only the filigree work, ornamental structures, and flower beds appeal to the understanding of such persons, as works of art.

You thus find yourself in charge of a trust whose nature is not appreciated by very many persons, and even by many of intelligence and opportunity for observation: and this, simply because their attention never has been seriously called to the art of landscape construction and park building.

In my judgment, the plantations of the Park are now, or are fast becoming, in very bad and disastrous condition. It is a thankless task to undertake their salvation. The Board of Commissioners who will let things for the future drift, and keep the surface green and bright for the time being, and add to the present "attractions" of the place, will receive passing praise, and will only share with all the rest the odium of having allowed the tree plantations to go to the dogs, when in a few years the matter comes to be popularly understood.

Very respectfully, your obedient servant,

WM. HAM. HALL,

Con. Civ. Eng.

SAN FRANCISCO, CAL., Sept. 30th, 1886.

HON. FRED LAW OLMSTEAD, Palace Hotel, S. F.

Dear Sir:

The Park Commissioners of San Francisco appreciate the relation which you bear to park improvement in the United States, and they believe that the people of San Francisco, also, will recognize in you the acknowledged leading authority on such art. Hence, they respectfully call your attention to a subject which has of late been under discussion here, and which the Commission believes to be, just now, vital to success in the development of a park on Golden Gate Reservation. This is, the condition of the tree plantations and other heavy growths there located, the proper method of treating these plantations for their preservation and betterment, and the general subject of developing and maintaining, in the most economical manner, an acceptable and satisfying growth of park-like vegetation, of various classes, over this reservation.

In this connection, the Commission transmit a report recently made on the subject by William Hammond Hall, consulting engineer, asking you to read it, and examine the facts as presented at the Park and to give the Commission, in such way as you see fit, the benefit of your advice on the points named, or such of them as you can touch upon, together with whatever else may occur to you in this general connection, and which your observations at the Park may prompt you to write.

With an assurance of personal esteem, and a sense of the considerable service you will render this public by compliance with this request, I am, sir,

Your Obed't Servant,

R. P. HAMMOND, JR.,

Chairman Board Park Commissioners.

COMMUNICATION FROM HON. FRED. LAW OLMSTED.

SALT LAKE,¹ October 5th, 1886.

R. P. HAMMOND, JR.,

Chairman of Park Commission, San Francisco,

DEAR SIR: I have the honor to reply to your note, received as I was about to leave San Francisco. You ask that I give you in a few words the result of my impression received from the examination which I have recently made of your Golden Gate Park, and especially my opinion as to the condition of its forest tree plantations, and the necessity of thinning out the trees composing them, etc.

The work of improvement of your park site, in common with that of others, naturally is divided into two classes, according to the purposes had in view—the one, the creation of a park, the other, providing for its occupation and use, and the amusement of people therein.

The more important is that of obtaining the apparently natural outlines and growths constituting a park fit for occupation by a city's crowds, and suitable for the distinctly rural recreation of people, as a relief and counterpoise to the urban conditions of their ordinary circumstances of life.

The attaining to this end must be largely the work of nature; but that the result may be altogether suitable, as well as pleasing and interesting, obstacles to the necessities of use must be removed, the desired work of nature must be started and assisted, and the natural development of plantations be studied, guided, and encouraged in various ways. Beyond this, in the preparation of your park proper, nothing else is necessary but the provision of ways by which the results of nature's work may be enjoyed by the public without injuring and wearing them out.

¹ This letter was written by Mr. Olmsted on his way East. His residence and business address is Brookline, Mass.

In noticing, as you ask me to do, what has been accomplished on your grounds in this way, I am able to compare the site for the proposed Golden Gate Park, as I examined it last week, and as I saw it twenty years ago, when the question of its selection was being discussed. And now I say that the result thus far obtained in the legitimate line of park creation, although as yet comparatively but little attractive to the public, or effective to the end in view, is an achievement far exceeding all that I have believed possible ; and that it gives perfect assurance that if the work so well begun is as wisely carried on, no city in the world will have as good reason for taking pride in its park as San Francisco.

The Golden Gate Park, judiciously developed, is certain to have a unique and incomparable character ; and this, not because of any striving after artificial originality, but because of the inauguration of its design and growth by a thoroughly studious, inventive, and scientific exercise of judgment in grasping such opportunities as nature afforded, and in the solving of an extraordinary problem presented in the circumstances of the locality.

The creation of a park on this site in imitation of other great parks, is a result which could have been accomplished in a limited degree, by the expenditure of great sums of money, and its value would have been more than measured by its cost. But the starting of growths which will successfully come to maturity, and be maintained at small cost on this site, having a park-like effect, unique and singular though it be, and the outlining of a plan admitting of its pleasurable occupation for rural enjoyment, is an achievement of value to San Francisco very far in excess of its cost. This, I think, has been effected. The foundation is laid and the possibilities demonstrated.

As to the other line of improvement which you are called on to carry out, it is that of providing grounds for public entertainment. This is done chiefly by a show of plants arranged and displayed in a manner the reverse of a natural or rural order.

What has been done for this purpose, chiefly in the garden

of your Conservatory Valley, is a good piece of handicraft in the style that has for some time past been in fashion, but from which a reaction seems now setting in throughout communities older than your own.

Your ornamented ground and flower garden being in no respect the product of local circumstance, or representative of distinctly local taste or study, and its full value being already realized, calls for no expression of judgment from me as to the possibilities of its future. I will only say that I am inclined to think that it was unfortunate that ground was taken for this purpose within the territory to which the term *park* has been applied, because it tends to confusion of public opinion between the wholly irreconcilable purposes of a rural park and those of an urban garden, and to favor neglect of the more substantial and more permanently important of the two.

In my view it is most desirable that the public, to whom you are responsible, should bear in mind that your fine garden ground, with its arrangements for crowds of people, its brilliancy, its bustle of carriages, and its brass band, is to gain nothing of importance through future growth, and that should it be swept away by a flood, or ruined by neglect or parsimony, a similar and as valuable a means of entertainment could be produced in a short time, at small expense, on the same site, or in any other part of the city.

It is no more an essential part of the rural park which you so much need, and in the future will absolutely require, for your people, than is a picture hung in a frame an essential part of the house which holds it. Two or three years from now it would be of little importance whether it is this year well managed or not. Lost ground in this class of improvement can quickly be recovered. Not so with the Park proper—the permanent and really valuable portion of your charge—the grounds at large, with their various growths of trees, and shrubs, and plants that produce, or are to produce, your rural effects. The degree of wisdom of its management today governs the value of results in years to come.

That which has been achieved points the way for future action. It is no longer an obscure problem. Observe and study

well the results before you. Unless managed with disgraceful waste of the opportunities now offered, there is no reason why the park proper should not go on gaining in value through greater fitness for its purpose, year after year, indefinitely. It cannot fail, under decently conservative management and sustained study of the demands which nature makes apparent to be far more attractive and useful ten years hence than now, and a hundred years hence than ten.

As to the question you more particularly ask me to consider—the condition and management of the forest tree growths—I consider that Mr. Hall's views, embodied in the report you hand me, are unquestionably sound, and my examination of the place enables me to say that his statements sustaining them appear to me to be moderately made and accurately correct.

The conditions of the case are in such degree unusual, and the results thus far attained so conclusive of the soundness of the course recommended, that it would be unjustifiable to turn aside from it, even if no evidence from the experience of others could be offered in support of it. His theory can stand on its own legs.

But, in fact, it is sustained by all experience the world over. No man with the slightest claim to speak with authority, can be found in the least at difference with him. I do not doubt that it was essential to the successful growth of the designed masses of foliage of the Golden Gate Park, that its trees should be planted as closely as they were. I do not doubt that it is equally essential to the growth in a healthy way of such masses that, as the trees advance in size, their number shall be greatly reduced. It is a common practice, as Mr. Hall states, after certain periods of growth, not to leave more than one out of five of trees originally planted. The best park plantations in the world (by which I mean the healthiest, sturdiest, longest lived, and most agreeable in natural aspect), have been obtained in this way.

The condition of the older plantations in Golden Gate Park has now become such, through neglect of the timely, continuous and gradual thinning originally intended, that very

many comparatively large trees have to be cut out, and in many places the older groups cannot be judiciously treated without temporarily injuring their appearance. If to avoid such momentary apparent injury the neglect is allowed to continue, the trees will soon be ruined; that is to say, the majority will come to a miserable, lingering death, and those surviving, instead of presenting agreeable and effective masses of foliage, will be awkward, gawky, semi-detached trees. The purposes with which the plantations have been started, both as to effects of scenery and effects of bodily comfort for those visiting the park, will then be attainable only by cutting the old trees away altogether, and starting again with new plantations to be better managed.

In conclusion, let me counsel you, in general terms, to remember that your Park is not for today, but for all time—so long as you have a city. Its development is an interesting problem, no longer obscure, to be sure, but yet to be studied in a careful and sustained manner. You have your present population to satisfy and please. It is an intelligent population, beyond a doubt, and possessed of a high appreciation of good results. But it is to be expected that future populations will be more intelligent and more appreciative. The art of landscape architecture is a specialty which, in its exercise, peculiarly demands a forecast of the future. The materials of the work themselves grow and are progressive. To work with them demands sustained observation and intelligent making of deductions. I hope that Golden Gate Park may have these. It has been the ruination of many such grounds to have them pass rapidly under successive managements. The artistic direction of work on such grounds should, as far as possible, be continuous when once found fitting. It is not to be expected that the public will understand the necessity for and object of much that is done on such works. To do your duty, you will often have to sanction apparently reckless destruction of some present result. Such grounds are developed as to details, by stages of growth. When the time comes, one stage must give way to the next.

Yours respectfully,

FREDERICK LAW OLNSTED.

REPORT OF MR. JOHN MCLAREN,

Landscape Gardener.

SAN MATEO, Sept. 25, 1886.

R. P. HAMMOND, JR.

President Board Park Commissioners, San Francisco, Cal.

SIR:—In compliance with your request, I have examined the forest tree plantations at the Golden Gate Park, and now give you my opinion of their condition, and of the best methods of improving them.

I find the older plantations—composed principally of pine, cypress and eucalyptus—in very bad condition, which is the result of neglect in thinning. They were planted thick for various reasons, but have been allowed to stand as planted until the lower branches have died off, and the trees spindled up to thin stems. Also, where near the drives or walks, the branches of pines and cypress have been trimmed in to keep them out of the way, and have thus been killed to the stem. All this results in a stiff and stubbed appearance, and in weak trees, very far removed from the rich, vigorous foliage, branches, and trunks which the trees would have, had they been properly attended to during the past ten years. Unless they receive immediate attention they will be past recovery. I have seen whole acres of conifers die off in a single year, from these causes, that were in very little worse condition than are these old plantations now at the Park.

Now, as to what to do, to better the condition of these plantations: In the first place, I would do just as you are doing now, that is, taking off all dead branches and limbs, cutting out all dying or sickly trees, all deformed or leaning trees liable to fall or to injure others in any way, and then treat the surface to some good top dressing to enrich the soil, and encourage a vigorous spring growth next season.

* * * * *

Beyond this point, it is very difficult to determine how to treat plantations that have been neglected in thinning, as have the older groups at the Park. The first thing I would do would be, to select and mark, after a careful examination of each group, the

strongest and most promising specimens, to remain as the permanent trees, at proper distances apart when fully developed. All others should be pruned away or cut out from time to time as inspection would show to be necessary, to insure a proper, vigorous growth of these permanent trees, whose lower branches should be preserved as long as possible, and which should be kept clear enough on all sides to promote full and even development all around. Where neglected for so long a time, thinning must be carefully carried forward. These plantations will have to be gone over a number of times. Do not overdo it at first. For although there are four, five, or six times as many trees in the groups as there ought to be, the surplus ones must be removed from time to time, as the others spread their branches to close the gaps. The question is one to be continuously studied on the ground, from month to month, and from year to year. I should say that many groups will bear cutting this year, as many as one tree out of three or four. And on the average the older plantations should be relieved at once of one tree in every five. Remember you have four or five times as many trees as your soil will mature, and as the air space above will admit of spreading in these groups. They have been so long neglected that you can not hope to reduce them to the proper number, but certainly within the next few years you must get rid of at least half, if you want any desirable trees left at the end of the next ten years. As it is, it is a bad job, and you can only hope to prevent further ruin, but not to entirely remedy that which now is so painfully apparent to any one who knows about trees and their cultivation.

As a rule, of course, take out the poorest trees; but it may be necessary to sacrifice one of the best in order to save two not quite so good but better spaced and more fitting in the group. Sometimes it will be necessary to take out several in order to give light, and air, and root space to one good tree. In such cases, the point to be guarded against is not to expose it too suddenly to the winds, else it blow over before it has thrown out roots to accommodate itself to its new condition. To be thus guarded, you will have to do some temporary work in trimming trees one year which you intend to cut out a year or two later, thus effecting a gradual removal.

Groups of such trees in this State have to be gone over and thinned every year until they are fifteen or twenty years old, because of their rapid development. In Great Britain and in the Eastern States, once every three years generally suffices.

The trees in some of the groups are so far gone that they cannot be saved to good purpose. Better cut out spaces within such groups and around the margins, fertilize the soil well, trench it over, plant new trees, and as they grow, in the course of four or five years, cut away the balance of the old ones in the group.

Other groups can be closed around by younger trees about the margins, and thus in course of a few years, if properly attended to, they can be brought back to a vigorous appearance, but they will always be hollow, from the interior trees having lost their lower branches and acquired a slim growth of long trunks.

I have now, and have had for twelve years past, the charge of the plantations on one of the largest estates in San Mateo county, and have several hundred acres in forest and ornamental tree growths. My practice has been to plant thick, and thin as soon as the trees showed the slightest indication of interfering with each other. The result has been most satisfactory. Where this work has been neglected, the result has been disastrous. It is a rule which to my own knowledge is practiced throughout Scotland, where forestry is a well understood art, and I believe everywhere else that the subject is studied from either an economical or landscape point of view.

There are trees standing in the groups at the Park at intervals of four to twelve feet, which should be at least thirty feet apart at their present age of fourteen or fifteen years. In other words, enough should have been cut out during the past ten years to have left thirty-foot spaces between those remaining. Had this been done, you would have better protection from the winds than you have today, and you would have permanent, vigorous trees, instead of weak things liable to blow over, or die within the next few years.

Take care that your younger plantations are not thus neglected. Your groups of five to ten years of age now want thinning badly, and if the work is promptly, judiciously, and continuously carried forward, you can save them almost entirely from the fate of those of older growth.

Respectfully yours,

JOHN McLAREN,

Landscape Gardener.

EXTRACTS FROM LETTERS

Found of Record in the Files of the Board of Park Commissioners.

From the record it appears that Mr. Hall was, as engineer and superintendent, from time to time, during the years 1870 to 1876, in professional correspondence with Mr. Olmsted, concerning the development of a plan for and the improvement of Golden Gate Park; and the copies of his reports were sent to Messrs. Olmsted & Vaux, landscape architects, who, in those years, had charge of the improvement of the New York Central and the Brooklyn Prospect Parks. This correspondence was professional, and not based on personal acquaintance or friendship.

Soon after receiving a copy of the first biennial report, in 1872, Mr. Olmsted, for himself and partner, wrote a long letter of advice, from which the following is the opening paragraph.

“We have much interest in examining your plans, in which we recognize many well devised elements. No more difficult problem has probably ever been presented in our profession than that involved in the San Francisco Park undertaking. The responsibility of forming a plan for it is a much greater one than that which we met in the Central Park or any other work.”

Two years later, in 1874, on the receipt of a copy of the second biennial report of the engineer and superintendent of Golden Gate Park, Mr. Olmsted wrote as follows :

“I have received and read with great interest your second biennial report to the Park Commissioners. * * * *”

“You will not think it presuming if I frankly advise you of the impressions made upon my mind by this document.

“I have been inclined to regard the attempt to prepare a large city park on the site given you for that purpose an ill considered one. *

“I must now say, however, that I feel much more confidence than I have hitherto been able to do, that if you are allowed to continue your work, and are adequately sustained, the thorough study, good taste, and sound judgment which appear to me manifest in your papers and plans, will certainly produce results of striking interest and value.

“Cutting yourself completely clear of the traditions of Europe and the East, and shaping your course in details by no rigorously predetermined design, but as you find from year to year that nature is leading you on, you will, I feel sure, be able to give San Francisco a pleasure ground

adapted to the peculiar wants of her people, with a scenery as unusual in parks as the conditions social, climatic, and of the soil, to which your design is required to be accommodated.

“If I had any influence with your principals, I would use it to strengthen them in a disposition to let you follow a perseveringly tentative and experimental policy in respect to elements of scenery, and especially to secure sustained and multiplied tests of the adaptation of plants to the many peculiar combinations of conditions in which you are required to secure, over great open spaces, rich, constant, and varied verdure.

“I heartily congratulate you on the success which has thus far attended your studies, and on your good prospect of accomplishing more than, with my limited knowledge of the local conditions, I have hitherto thought practicable.”

Still again, two years later, in 1876, on receipt of the third biennial printed report, Mr. Olmsted wrote as follows :

“Since I wrote you this morning, I have received your third biennial report, and have read it with great interest. I cannot too strongly express my admiration of the spirit and method which characterizes your undertaking, and I do not doubt that it will be rewarded with results such as I have not hitherto thought it reasonable to expect under the circumstances. There is no like enterprise anywhere else, which, so far as I can judge, has been conducted with equal foresight, ingenuity, and economy.”

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