The Autobiography
of
Warren H. Manning

(Copied from the original manuscript by
Warren H. Manning)

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CHAPTER I
FAMILY BACKGROUND (Before 1860)

Howarth's History of Downe, Kent, England, states that the Mannings were "The most distinguished of the earlier families of Downe." They came from Simon de Manning, "the first of the English Barons to go with King Richard I (1189–1199) to the Holy Wars in the Second Crusade, when he was knighted." (Manning genealogy)

My father, Jacob Warren Manning, born 1826, died 1894, was of the eighth generation from William Manning of England, who settled in Cambridge, Massachusetts, in 1634. Father's parents were Solomon, born 1799, died 1862, and Mary Fletcher Manning, born 1800, died 1878. They were descended from Fletcher, Warren, Andrews, Woodward, Beard, Sprague, and other families. Mary Fletcher was of the seventh generation from Robert Fletcher, who was in Concord, Massachusetts, in 1630. Her mother was Lucy Andrews of the seventh generation from Robert Andrews of Ipswich, Massachusetts. She lived with her son, Solomon, at Bedford, who was a town officer and a member of the State Legislature from 1900–1.

In 1856, Jacob W. Manning married Lydia Brooks Chandler, born 1839, died 1908. She was the daughter of Abial and Mary Felt Chandler, of Concord, New Hampshire. The ancestor, William Chandler, was in Roxbury, Massachusetts, in 1637. There were the Felt, Abbott, Copp, Nagle, Upton, and LeBosquet families in the Chandler line.

My father was a well-developed man of average height and weight and with a full beard. He was raised on the Bedford home farm, and proud of the fact that he could lead others in hoeing, cutting cord wood, and other farm work. He was educated in the public schools with a year in the Francestown, New Hampshire, Academy. At 21 he went to Massachusetts

where, until 1854, he directed horticultural work in nurseries and on important private estates.

In 1849 he planted the first layer from the Concord grapevine, in Concord, Massachusetts, to the Winnisimet Nursery, in Chelsea, before the grape was named. He also took the first plants from the Houghton Gooseberry. In 1854 he bought property for his Reading Nursery, in Reading, Massachusetts. He introduced to cultivation the Woodward Arbor Vitae and received a medal therefore from the Massachusetts Horticultural Society, of which he was a member and on Fruit Committees for many years. His portrait in one of the offices of this Society. He received a medal from the Massachusetts Pomological Society for a collection of pears at the Chicago Exposition, where he planned and planted the Massachusetts State Building grounds and was awarded a medal for this.

He discovered and introduced the Cut-leaf Staghorn Sumac. He introduced the Cutter's Seedling Strawberry and Dracut Amber Grape. He pictured and offered new fruits and ornamental plants as soon as they were on the market and urged the horticultural value of native plants. He gave special attention to the introduction of the Clethera, Adams Needle, Minnesota Honeysuckle, White and Rocky Mountain Blue Spruces, Double Perennial Sunflower, and new varieties of Apple, Pear, Grape, Gooseberry, Blackberry, Wineberry, and others. From his nursery, plants went to nearly every state in the union and many foreign countries.

To broaden his knowledge, he traveled in this country over 125,000 miles in trips of not less than 500 miles. From June 14 to August 12, 1880 he made a 7,000 mile trip, on which he was up to 7,345 foot elevation in Colorado, where he walked 100 miles in four days from Georgetown at 8,000

foot elevation to Argentino pass at 13,000 feet, then down the Snake River and Hall Valley to Denver. He returned home by way of the Lakes Superior, Huron, Ontario, and George, and on the St. Lawrence and Hudson Rivers, and Long Island Sound.

In the Massachusetts Horticultural Society are his business account books, his diary, and the diary of his wife, and about 100 Reading Nursery circulars and catalogs from about 1857 to 1901. In an 1884 catalog, he states that, "Warren H. Manning, who makes landscape gardening a distinct feature of his duty as one of our assistants and salesmen, will make sketches and lay out grounds." In 1887, he states that three of his sons were his assistants. In 1897, J. Woodward Manning, born 1866, is named as Manager of the Landscape Department and Superintendent, with A. Chandler Manning, born 1874, as Assistant Superintendent. Mr. J. Woodward Manning was associated with me from June 15, 1901 to December 1904, when he took over the Reading Nursery. He is still in Nursery and Landscape work at Duxbury, Massachusetts. His son, Gerald G. Has an independent landscape practice in Chicago, Illinois. Mr. A. Chandler, born 1874, was engaged in his own landscape work, and then with the Olmsted firm until his death in 1935. Mr. William S. Manning born 1862, was in the Olmsted office with me. He was active in the development of estates, then Superintendent of the Essex County, New Jersey, Park System, and of the Baltimore, Maryland, Park System, before he passed away in 1885. Mr. Benjamin F. Manning born 1877, who died in 1938, was also active in Landscape work during a part of his days. It is unusual that all the sons in a family should continue the work of the father.

My mother was an attractive lady of average height who was an artist in water colors, but who gave up this work when she married my father. They enjoyed a life of wonderful companionship, always working together

over every home and business problem. She was his bookkeeper and, for much of the time, office and business manager. It was largely through her influence that her sons have been so anxious to develop and execute plans for home grounds, communities, and regions, with a view to making America a finer place in which to live.

The family genealogies indicate that there is an excellent background for this, as many ancestors were constructive leaders. The second William Manning, of Cambridge, of my line, with Deacon John Cooper, was appointed by the Overseers of Harvard College in 1672 to act as agent and steward for the erection of college buildings during a ten-year period. Mr. Manning was also sent to England to secure the services of Rev. Uriah Cakes as a Cambridge pastor, and who was later President of Harvard College. William Manning was a Cambridge selectman for fifteen years, and held many other places of trust and responsibility. His son, Samuel, went to Billerica, Massachusetts, as a pioneer and built the Manning Manse that is now the family headquarters. William's grandson, William, was a Lieutenant in the French and Indian Wars, and held many town offices, operated the Manse as a tavern, and wrote the Key of Liberty that the Manning Association has published, and that is looked upon by students as being a "unique and important study of the political problems of his day." The manuscript is in Harvard's Weidner Library, and the Tavern Book record is in the Business Historical Library of Harvard.

CHAPTER II

CHILDHOOD AND SCHOOLDAYS
(1860–1879)

In 1860, on November sixth, my father records in his diary, “Very rainy, from two to three o’clock, the last showers with sharp lightening and loud thunder with hail. An uncommon occurrence at this time of the year.” On the following day he writes, “At five minutes past 12 this morning, we had a son born to us. He is strong and healthy to all appearances. I set Hackett at work to dig the hole while I planted the Elm tree to commemorate the day that our first child was born. I think that there should be a tree planted at the birth of every child so that in the aftertimes it may be seen which is most useful.”

My first recollection as a baby is of sitting on my mother’s knee and turning, as she pointed, to see a mouse on the corner of the woodbox looking at me with his black beady eyes. He soon hopped down and ran into a hole back of the stove. I still have that woodbox, and we call it the Lady Mouse Box and use it for children’s souvenirs at family reunions.

My education was begun by my mother leading me about the home garden and showing me birds, flowers, toads, butterflied, and beetles. Seeing my first snake was a thrilling event. During the mudpie era of my childhood I modeled in sand and mud hills, valleys, tunnels, houses, roads, and gardens with pools. The trees were branchy weed tops; there were moss lawns, and tine weeds and other flowers for the garden.

A little later, I began to explore the world about me. I traced out the lines of the streams to their sources and located dams which had diverted the waters of a stream to another stream valley. Swimming and fishing places were located. Of course, with all this came the location of the best places to pick wild fruit and wild flowers. Sandpits were explored to find where the turtles had laid their eggs to be hatched out by the sun.

FAMILY BACKGROUND

Making collections began early. First came buttons, after finding an old-fashioned big brass one on a roadside dump, near my first school, then birds' eggs, bugs, butterflies, minerals, stamps, and finally the collection of thousands of family relics and documents for the restored Manning Manse Homestead.

Our first home was a one-and-a-half story wood cottage with a basement cellar kitchen at the southerly end into which one passed directly from the ground level. The east front of the house was about fifteen feet from the street. The front door, at its center, had a roofed porch with trellises and seats. Along the front was a flower bed, a walk, and a picket fence. At the northerly end of the cottage was a flower garden with box-edged walks and a tall Arbor Vitae shelter belt on the northerly and westerly sides. At the north end, close to the house, was a tall Norway Spruce; and at the west side was an attached shed for wood and coal, with a carpenter's bench and earth closet, and a steep turf slope with an Arbor Vitae on it, and a walk up from the backyard to the garden.

About 40 feet south of the cottage basement door was the well with its pump. West of this yard was an old shop and a long shed at the top of a high retaining wall, with a tall Larch at the back, in the branches of which we boys built our tree-top hut, entered from the shed roof. In a building to the south, that is now a dwelling, was the office, packing shed, stable, and some employee's living rooms. On the lower lands, west and south, and the higher lands, northward, was the Lower Nursery. The Upper Nursery, of about ten acres, was a quarter of a mile northward. At later period, two other ten-acre nurseries were added about a mile from home.

Inside the cottage, to the north on the main floor, was the parlor with its stove, reserved chiefly for company and occasionally used as an emergency bedroom. To the south was the combined living room and kitchen

with dining table and cook stove, a sink room, dish closet, and large pantry. Our weekly baths were taken in the kitchen or cellar kitchen in a tub of water taken from the pumps and heated on the stove. In the sink room were shelves and an iron pump and sink, with a closet under the sink, and a westward window. The china closet was on the same side beyond the stove and woodbox. Near this was the door into the pantry where most of the cooking supplies were kept and the food prepared.

There being no sister, we boys had to help in all the housework. I occasionally made and cooked bread. Beans had to be prepared for the Saturday and Sunday beans and brown bread. A favorite dish was hulled corn that came to us weekly. The iceman brought ice for the refrigerator and had a pan under it to be emptied daily. The grocer and the meatman also came regularly. The clothes were washed at home.

There was a window in the pantry through which we could climb to the roof of the shed and slide down the steep turf bank at the back of the house. It was once an emergency exit for me to escape from a neighbor's mother who chased me into the house with a big stick to beat me for cutting her son's head in a stone-throwing fight which she had interrupted.

On the top floor, under the pitch roof, were three bedrooms, and an under the eaves storage place. When there were overnight guests, we boys had to double or triple up in a bed. The southerly chamber, with a stove, was mother and father's room, except when it was used for my brother and I when ill with scarlet fever, and when two other brothers were ill with diphtheria. Here all the children were born. The north chamber was used by three brothers. I was ill with measles in this room and remember vividly the pleasure that came to me from seeing a Robin lay her blue eggs, in the house and Norway Spruce, help the little birds emerge therefrom, and poke them out of the nest to learn to fly. I wish all men and women were as faithful and help-

ful to their family as these Robins were.

The third chamber was mine—sometimes shared with one of my brothers. It was a narrow under the roof room along the upper hall. There was a small, low, west view window under the eaves where one had to kneel or lie down to look out, with a roof skylight overhead. Never shall I forget the pleasure and the inspiration that came to me as I lay watching the constant changing of the sky overhead, the brilliancy of the sunsets, and the early morning skies, the stars clear or dimmed with haze, the delicacy—the boldness and the variety of cloud pictures through the skylight. All this gave to me an appreciation of the importance of skyscape beauty which I think I could not otherwise have attained.

The basement with its cellar kitchen room, cellar, and shed was dominantly important. As the cellar had only one narrow foundation window, it was nearly dark at midday. In the cellar kitchen, and in this cellar, with light from the open doors, were sorted the apples, pears, potatoes, carrots, beets, parsnips, and onions for cellar winter storage in bins, boxes, or barrels. In the cellar there were also barrels of salt port, corned beef, and cider, with a big hogshead of soft soap made from greases saved all year from the kitchen. This was in a cellar entry way. Overhead, in the cellar, were shelves—secure from rats and mice—for the jars of preserves and potato yeast. I well remember when a bottle of this yeast exploded in my hand as I lifted it from a shelf and covered much of me with a slimy white mess. This preserved food, yeast, and soap were nearly all prepared in the cellar kitchen. The fruit and vegetables were mostly home-grown products.

How few people today realize that only fifty years ago much of the food required by a household for the winter months and for most of the year was grown on home grounds, prepared and stored with the aid of the family and a hired girl—who was a member of the family, not a servant. Is not the

time here when more—many more—of our unemployed people should have "Greenbelt" homes in which they can grow much of the food, with goats, and rabbits for milk and meat?

About 1875, my father moved this cottage a half-mile away to the Upper Nursery on High Street, and erected near the site an elaborate ten-room house in which I had a blue bedroom. Here I worked out two taxidermy projects. One was the stuffing of a little striped Creeper Bird which I had shot with an old musket. That night, the cat chewed up my specimen, became very sick, and made an awful mess for me to clean up. Another taxidermy effort was on a Mallard Duck which I found dead on my way home from school. He decorated my room for a long time. Other collections are referred to later.

These homes were near the Boston and Maine Railroad tracks, and the homeward movement of blue-clad troops and glistening guns and other equipment in cars therein are my Civil War memories, together with a visit to a hospital near my grandfather's farm, at Concord, New Hampshire. I cannot forget, as long as I live, the long lines of white-covered beds with crippled and invalid soldiers. I have hated war ever since; and the experiences of my only son as a Sergeant in a water supply regiment of France, in the World War, has intensified my feeling that wars should be stopped!

My uncle, Jacob Chandler, was a Union Army Scout, and told me thrilling tales of his adventures. One story was of an escape from pursuing Confederates by riding his horse into a stream, driving him away from the opposite shore. He dropped under water with his fact out under an overhanging bank as his pursuers crossed the stream and followed the footprints of his horse.

The railroad was a source of constant interest. The trains kindled the imaginations of my generation in the same way that airplanes enthrall the youngsters of today. I, of course, listed locomotive names and numbers. A tragedy occurred when a brakeman fell between the cars in such a way that a

wheel ran over his leg. We fixed up an emergency stretcher and helped to carry him to the station for the trip to the hospital, but he lived only a little while. Although this subdued my enthusiasm for a time, it did not permanently discourage me from putting pins and coins onto the tracks to be flattened for souvenirs, and then very bad practice of "hopping freights."

Another vivid railroad recollection is of a train journey when I was about six. A charming lady, and a smiling, full-bearded man occupied the seat behind us. I turned to face them, with my knees on the seat and my elbows on the back of it, and we chatted for a long time about the things I was much interested in. When father and I got off the train, the conductor asked me if I knew with whom I had been talking to. When I said, "No," he told me that they were Henry Wadsworth Longfellow and his lady.

We children went to the Old South Congregational Church and Sunday School regularly, and I sang in the choir there for some time. I went to a revival meeting of an itinerant revivalist and went forward when the call came for a confession of faith. I later regretted this act when I came to realize that the Infinite Power that was responsible for the creation and direction of the Universe and all life in it had given us individual power of thought and action, and a conscience to control our action towards others. My thought was that I should not be tied exclusively to one church group when there were so many other groups whose motives were just as sincere in serving the Infinite Power in working for the general welfare of mankind.

Another boyhood pledge that I signed with other boys of my High School class was not to smoke until I was 21. I kept the pledge and have not smoked since, chiefly because I did not want to have it interfere with my work. Smoking in moderation does not seem to me to be undesirable. I made up my mind, however, that I would sign no more pledges, as one can never tell when conditions may change in ways that make what seemed to be wrong at one

time an advisable thing to do at a later period, with the need of breaking a signed pledge.

My schooldays began in the Slab City School, Reading, Massachusetts, about a mile from home. This village name came from the slabs from its one sawmill that were used in early homes, that were soon replaced by better ones. The way from home to school was always full of childhood interest. Opposite our house was a big field where we flew our kites. One of my kites was so big that it pulled me across the field, until I could wrap the string around a tree to stop it.

In this same field, a grass fire got away from us boys, and the calling out of the Fire Department was an event discussed with much gusto for a long time thereafter. Later we deliberately set fire to a pigeon shooter's brush blind and were caught at it by an oxcart driver who came after us with his sharp pointed goad. He made us put it out and said he would send the constable to arrest us. For some weeks, I lived in dire fear of being arrested, but I never was. However, it was the last fire which we ever deliberately kindled. Another time, I saw a flaming barn from my bedroom window in the middle of the night and rushed half dressed a half-mile to ring the church bell alarm and then to go with the engine to the fire.

On our way to the district school, we passed several houses. At one was a tall, old pear tree which we stoned for fruit. The old lady who owned it let us do it without protest, for which we always regarded her with special affection. Then we passed my father's ten-acre nursery in which was a big boulder with a shelf half way up. It was a big stunt for we children to climb to the top of this. In later years, it was quite impressive to see how much smaller this rock appeared. Farther on came a ledge with steep sides to a deep depression that filled with water after a heavy rain.

To initiate a new boy into our "gang" we got him onto this ledge and gave him a push for a good ducking. There was an orchard, then a road corner with a big Ash, a little brook running under the road, and then the school house with a big Ash and a White Pine by the roadside. I climbed the Pine once and fell out of it onto a bottle in my pocket and I still carry the scars.

The schoolhouse was a clapboarded building on upland with a westerly slope down to the highway, with nearly level land at one side of the basement level that wasn't flat enough for three old cat, scrub baseball, and other games. Here, too, was a low boulder for "duck on rock." On rainy days we played in the stone-walled basement, with its split granite posts that supported the school floor. There was but one schoolroom entered through boy and girl's entries for coats and hats. Between the two entries, back of the teacher's platform, was a little room in which boys or girls would be shut in for punishment. I was put in here once, and I dug a little hole in the plaster than the teacher found. She asked me which finger I used, and the one indicated got a good whacking with the ruler. Then I remembered that I had told her the wrong finger—but I did not go back to have the right finger whacked. I remember this teacher and two others I had here with real affection for they all helped greatly in making a foundation for my future work.

The views from all sides of the school to meadows, marshes, orchards, and woods were most inviting; and I tramped over the region thoroughly. A five-acre thicket was in sight in which I found myself walking in a circle after collecting flowers. This was the only time in all my explorations in every State in the Union that I was ever lost in the woods.

It was for supposedly playing truant from this school that I received the only spanking my father ever gave me. The scene was our cellar kitchen. The circumstances were these: there was a young man of the town who had

been detected stealing father's letters from the post office. He had taken money from some and had put them into a ditch where they were found, brought home, and dried out on the mantle piece, as he was being examined by an officer. Since he returned the money, no action was taken against him; but I was present when he was reprimanded by the police. He evidently retained a grudge against me. He came to the Slab City School one noon and persuaded me to go to a mill pond about a mile away where he was to give me a boat ride. He rowed under the floor of the bridge, over the mill race where the water was rushing over the dam, tipped the boat so that I was thrown into the water, jumped out, and ran away. As the boat went over, I grabbed the edge of a bridge plank above me, held on till he was out of sight, then pulled myself out and went home to the spanking for playing truant. A few weeks later, this same boy was swimming with a group of us boys in Lake Quannapowsitt <Quannapowitt?> where he held me under water until I lost consciousness. One of the boys saw what he was doing, pulled me out, and rolled me over and over until I got my senses again. There was no pain in getting drowned, just a fast, flying succession of thoughts until I gradually fell asleep. The distress came when I began to regain consciousness and was struggling to get my breath. My would-be-drowner went West, and there was a rumor he was hung for murder there.

Another vivid memory was of a great thunder storm. From the school room window, I saw the lightening strike an Ask, and I felt a tingling sensation in the tips of my fingers. Years later, I had a similar experience on the Biltmore Estate in North Carolina, when I was riding a horse down a mountain road and the lightning struck a big Pine nearby. I also vividly remember two other great thunder storms, one in my home town, and one at Lake City, Minnesota. For me, a great thunder storm is the most spectacular evidence of the Infinite Power in Nature. Sunsets, too, and sunrises are so wonderful that it is always amazing to me that so many people regard so casually the

miracle of changing cloud and sky colors and forms. There are certain sunsets which stand out in my mind as major events. One I viewed from the deck of a Mississippi River boat on my way from Des Moines, Iowa, to Lake City, Minnesota. The sky was a dazzling scarlet; and its reflection in the river, framed by high green bluffs on either side, made a wonderful picture. Another I saw from a train speeding through New Mexico. The sky was embroidered from zenith to horizon with intricate patterns of deep red and bluish grey. The plains stretched far away to the horizon with a glow of reflected color; and on the plains were great herds of grazing cattle. Perhaps the day will sometime come when sound signals or the radio will announce a wonderful sunset as they now announce a fire, or no school.

A great snowstorm is similarly awe-inspiring. I remember one particularly in January 1869. I had no trouble going to school through the snow in the morning; but at the closing hour, such great drifts had piled up that one of the big boys carried me on his shoulders to a house part way home where I waited and watched until I saw my father come tramping through the fields to carry me the rest of the way. Another storm of similar severity took place in February 1898. At that time, in order to get to my office in Boston, I had to go on snow shoes for more than two miles from my home to get a car on a line that had been opened into Boston. The moist snow that gives every branch and all tree trunks a lacy coating of white makes a wonderfully beautiful transformation in our landscapes that the people of the tropics cannot have. Think of the joys of winter ice and snow recreation with the snow train that my be soon supplemented by snow airplanes. I surely do not want to live where there are no winters.

CHILDHOOD AND SCHOOLDAYS

Now back to schooldays. From the Slab City School, where I went up to about the sixth grade, I went to the village center grammar and high school at Reading, Massachusetts. I walked about three-quarters of a mile through an open field, from the summit of which could be seen the distant mountains of southern New Hampshire. After the field came a small knoll covered with Pines and a woodland valley in which we crossed a little brook on a two-plank bridge. Little do the children of today realize what they miss in healthful exercise and contacts with Nature when they ride in a bus to school, at high cost to their towns. Near this school was the old town cemetery where my friends and I sometimes ate our noon lunches, with graves or gravestones as seats.

My schoolmates were nearly all Yankees, and we ran through the usual course of study with little distraction from interscholastic games. I was not much of a student, but the word of a favorite teacher, Miss Mary Stinchfield, about the time of my graduation from high school provided a lasting stimulus. As a member of my class of 1876 committee, I was searching for a class historian; I asked her who excelled in composition. I was astonished when she told me I did, for I had never realized that I could excel in any activity. I determined at once that if I could do one thing better than anyone else, I would try to excel in all my work; and I have been trying to do so ever since. This shows how far the sincere words of commendation from a teacher may profoundly influence the future of a student.

My school education was rounded out by a year at General Russell's Military School, At New Haven, where the contact with men from fine families in many states exercised a broadening influence and gave rise to many new ideals and interests. The military training was of real value. Here I fell on the backyard ice and broke my arm, and waited about six hours before it

was pulled in place with no opiates. Not much fun! Furthermore, the would not let me run in a hare and hound race with my arm in a sling. General Russell was a grand elderly man who was respected and greatly admired by everybody and who had outstanding skill in selecting his teachers and other aids. I also took a term in bookkeeping and accounting at French's Business School, in Boston.

My education, however, neither began nor ended in the schoolroom. It was supplemented through all my schooldays by the knowledge which I was gaining from work in my father's nursery, on my grandfather's and uncle's farms, and from my own activities in making botanical studies and collections and especially through my contacts with clients in my professional work to be referred to later.

My brothers and I did much varied work in the nursery. We divided and transplanted all kinds of shrubs and herbs, trimmed evergreen trees and hedges, budded the fruit trees, destroyed tent caterpillar eggs and nests, helped to dig and pack nursery stock for shipment, cultivated nursery rows, and hoed out weeds. At one period when I was tired out in the afternoon from the day of hoeing, a friendly Bob White would call to me and I would answer, and this conversation could give me new energy for the remainder of the day's work. In the winter time, we made cuttings and stored them in sand to be ready for planting in outdoor beds in the spring. There were no greenhouses at the nursery, but I did work one winter in greenhouses in Melrose Highlands. Looking back from my own landscape practice, I recognized how much my father's skill as a landscape designer and plantsman and observer of landscape values had to do with my training.

During these years, I spent a summer helping in the fields and barns of my uncle Solomon Manning's farm, my father's old home, at Bedford, New Hampshire. Here, the association with my cousins and others in that

farming region did much to broaden my knowledge and appreciation of the farmer's point of view, of his dependence upon climatic and soil conditions, and upon long, hours of hard work. A fine Newfoundland dog was one of my friends here. Here also I shot my first squirrel and as I saw his eyes glaze in death, I made up my mind I would do no more killing of wild life unless necessity required this. Another adventure at Bedford was a fall from a tree with two Kingbird's eggs in my mouth. I law unconscious for more than an hour, and the taste of those broken eggs in my mouth when I woke up is a memory which still makes me shudder.

I also spent a year at my grandparents' farm, at Concord, New Hampshire, and attended school there. I gained much inspiration from Grandfather Abial Chandler, who was a telescope and clock maker, and who computed the standard time for the State. He had a marked influence on my life, especially in molding my outlook upon the world and in forming habits of industry. I had to care for and milk two cows, drive them to and from the pasture a mile away—on horseback—care for the pigs, the horse, and saw wood for the greenhouse furnaces, as well as to pull weeds from field crops.

With grandfather, I visited Alvah Clark, the Cambridge, Massachusetts, telescope maker; and as we examined his work, he said that three feet would be the limit of lens diameter on account of the difficulties in grinding.

In the house I helped my grandmother dip candles and cook in the old brick oven. She was a fine housekeeper. It may be of interest to know that she had a crooked little finger like her mother and grandmother, that was transmitted to my mother, to me, to my son, and to one of his children. One of my tragic memories was when I was sent to school in a pair of my uncle's trousers with the legs cut off, but not made smaller in any other way. I was a bad boy here once when I yelled "Whoa!" to the horse that my

deaf grandfather was driving, with a hogshead of liquid manure. This liquid splashed over him, and he got off and gave the horse a whack—and not me as he ought to have done. Another incident that has stuck in my mind was when a calf pulled my plump grandmother the whole length of the barn floor as she held onto his tail to keep him from running away.

To my valuable nursery and farm experience, I added my botanical knowledge by collecting native plants with Mr. F. H. Gilson, who published a fourteen-page "Trees of Reading" with five full-page pictures of notable trees. We botanical enthusiasts in Reading collected specimens for a High School Herbarium. We also collected the minerals of the region to gain a knowledge of geological conditions on many long tramps.

Should not children be encouraged to make collections to supplement their school work, to gain a knowledge of the region in which they live—preferably as a part of their recreation. Such collecting would also be a very valuable way for adult to utilize the constantly increasing spare time which is at their disposal today. Out of such knowledge would come a better use of our natural resources by many people.

I must not omit my courting days. First I followed up the prettiest girl in my high school class; but I soon found she liked some other boys better than I. Then there was a very fine girl with whom I would walk to her home about two miles away. Then I discovered Henriette Hamblin Pratt—my Nettie Pratt—who was the daughter of a leading citizen and business man of the town. At first I would cross the road when I saw her coming for fear she would snub me; but that gave way to an affectionate regard that made us man and wife on June 2, 1885. We were sweethearts for forty-eight years. She was not only an ideal homemaker and hostess but she was also an artist in oil, flower, and landscape printing, and in the decoration of china. I am now in the family of our son, W. Harold, and his wife Doris, with their son George—a fifteen-year old high school student with high marks—and ten-

year old Richard who is the proprietor of the Richardson Savings Bank, in which we all make deposits; and from which I have withdrawn $1. and given my note for a month at 10 per cent interest.

Chapter III

Apprentice Days
(1879–1888)

I naturally followed my father's footsteps. My apprenticeship really began at the age of six when I licked stamps for my father's catalogs and circulars. Throughout my boyhood, I had learned much from my nursery and office responsibilities, already referred to. I reached new dignity when my father referred to me as a Landscape Gardener in his 1884 catalog.

I spent most of my Saturdays at the Arnold Arboretum with Jackson Dawson, at the Harvard Botanic Gardens, or at Horticultural Society meetings and exhibits to increase my knowledge of cultivated plants. A meeting was called by Frank S. Collins, March 2, 1881, at the Henry L. Moody home, in Melden, to form the Middlesex Institute that had frequent meetings and outings for plant collecting, with such persons as Mr. Collins, Dr. W. G. Farlow, G. E. Davenport, Oscar Frohock, Walter Dean, and Loring L. Dame. With Mr. Dame, two other members of the Institute and I made a ten days carryall trip behind a white horse through the easterly and northerly towns of Middlesex County. We slept in barns, in the homes of friends, and camped out under the carryall. Our purpose was to secure data for "The Flora of Middlesex County," with its E. P. Adams map. Messers. Dame and Collins edited it and it was published by the Institute in 1888, with 2,061 different plants located. I was credited with 25 locations. Of special interest in our trip was a large field of Scotch Heather in Townshend and bog in Ashby, Wilmington, and North Billerica at the Manning Manse with an unusual growth of peat-loving plants.

In the summer of 1881, two brothers, a friend, and I camped in the White Mountains—first near Glen House, from which we tramped up Tuckerman's Ravine by its ice cavern to the top of Mt. Washington, and down the inclined railroad to Fabyns, where we started to camp at a stream edge on

a recent camp site when “English Tom” appeared and recommended an upland site as the preceding campers had contracted bad colds. We found his site a fine one. We each had a turn at cooking. I found I could bake bread in an oven made by turning the tin pail upside down in the frying pan. We visited our friend’s camp on the side of Mt. Willard. When a sailor, he had been compelled to camp on a desert island with only snakes, lizards, and frogs, and a little sea food to eat. He had come to like a frog diet so well that he kept a supply in a barrel of water by the side of his door. He entertained us by picking up a small frog by its hind legs and swallowing it whole. We were told that he had swallowed several for friends at the hotel who’d gave him a drink which set the frogs to kicking inside so hard that he nearly passed out.

The Mt. Washington summit alpine plants were of special interest to me. There were very dainty white flowers with hair-like tufts of leaves, cushions of compact foliage covered with flowers, evergreen ground covers, and very dwarfed and compact shrubs. A lesson of this trip was to always collect the first specimen of a new plant even if it is not a good one. I failed to do this with one plant and had to go home without it. We explored valley and mountain trails. Such trips are of real value for young people.

At this period, in my Reading, Mass., home town, at a church entertainment, I saw Edison’s first phonograph—a revolving metal cylinder with tin foil cover that talked to us in a thin, squeaky voice; also an incandescent carbon point light which the lecturer said could not come into general use on account of the cost of installation and the upkeep. It soon came into general use, to be followed by the incandescent lights

in the vacuum bulbs, and now the Neon light.

The Morse Telegraph had come into use. I was especially interested in the new telephone, and turned one out on my lathe, and added the metal core. At a later period, I was thrilled by being introduced to Mr. and Mrs. Alexander Graham Bell at a meeting of the American Association for the Advancement of Science. It was also my privilege to have known Mr. Dolbeer, of Medford, who was so active in the development of the telephone. He was a very quiet, modest lover of Nature, who frequently attended the Middlesex Institute meetings.

In August, 1882, Dr. John H. Warder, of Cincinnati, Ohio, one of the first and most notable forest preservation advocates, had me read a paper for him at the Montreal Meeting of the American Association for the advancement of Science. In 1884, at another meeting in Philadelphia there were many distinguished botanists, with some of whom I had exchanged specimen. A surprise was a "How do you do, Mr. Manning," from Professor Ass Gray of the Harvard College Herbarium. I had met him only once at the Harvard Gray Herbarium with Professor Engleman, of Missouri, who identified a rare Southern Arrowhead plant for me, which I had found in a Middlesex county brook.

The approximately 3,000 herbarium specimen I had collected up to this time were given to the New England Botanical Club at the Gray Herbarium, Harvard University, as was the collection of Charles E. Perkins that he left with me just before he died. This Club was organized in 1881, chiefly by botanists who aided in securing data for the published Metropolitan Park System Flora. Charles Eliot of the Olmsted firm asked me to have this prepared as I tramped through the Blue Hills and Middlesex Falls with him.

APPRENTICE DAYS

On May 5, 1884, I was made a life member of the Massachusetts Horticultural Society by my mother. I have already referred to the diaries and records of my father and mother that are in the library to which I also contributed my collection of some 5,000 American and foreign nursery catalogs, as an aid in making the society's collection one of the largest in the world. Such a collection is especially important because so many new plants are first described and often illustrated therein.

The Society has always been a powerful factor in advancing garden and landscape design; and I gained much inspiration and knowledge from its meeting and from the many eminent horticulturists whom I met there. Among these were Robert Manning, secretary of the association for many years; T. C. Thurlow, who was an intimate friend of my father; C. M. Hovey, Joseph Breck, William C. Strong, and especially Marshall P. Wilder, who in 1881 published his "Horticulture of Boston and Vicinity," in which he indicates how Boston and its vicinity has led all America in the field of Horticulture since 1628, when Governor John Endicott, of Salem, planted a pear tree, which still survives. One of my treasures is a copy of this book, in which he wrote "Warren H. Manning Esq. (with the compliments of) Marshall P. Wilder, 83 y. 5 mo. 18. d March 12/82."

With my father I visited Charles Downing, of Newburg, New York, in a home with most attractive vineyards and orchards about it, from which he had tried out and introduced many new varieties of grapes and other fruits. His brother was A. J. Downing—the American pioneer of my profession.

The first public speech I ever made was before the Horticultural Society in January. My subject was "Landscape Gardening." I thought I trembled and stammered horribly; but my mother records in her diary that

my talk was “very good and delivered well.” Since then, although I have never been a ready or eloquent speaker, I have been able to hold my audiences.

On March 6, 1884, I gave an address on “The Improvement of Small City and House Lots,” before the Rhode Island Society for Domestic Industry, to an audience of about 200 who all stayed to the end. This led to my being called in as a judge in landscape and horticulture exhibits at the Rhode Island State Fair for the years 1895–6–7.

About 1887, Elisha Wright, of Medford, who was known as “the Father of Life Insurance” became interested in the acquirement of Middlesex Fells as a public reservation. I represented the Middlesex Institute on a committee, of which Mr. Wright, Professor C. S. Sargent of the Arnold Arboretum, and the Mayor of Medford were members, at a meeting in the Massachusetts Horticultural Society rooms. Mr. Wright was enthusiastic over a promise of some land and some money to purchase land. An arrangement was made for a public meeting to be held at the Fells, at which Governor Long was the speaker. A part of the program was a visit to Cheese Rock, the high summit in Stoneham. On the way up, I saw Dr. Wright, an old white-haired man, in the top of a Cedar tree to which he was attaching an American Flag on a pole, with Wilson Flag, the writer and naturalist, giving him instructions from the ground.

Mr. Wright died before his dream was realized; but the movement which he started led to the far-reaching conception of Charles Eliot, of Olmsted. Olmsted, and Eliot, who with his powerful persuasiveness secured legislation that led to the establishment of the Metropolitan Park Commission and its park systems. In this, he supplemented the important work of Frederick Law Olmsted, Sr. and his son, John Olmsted, on the

Boston Park System. After entering the Olmsted office, I tramped with Mr. Eliot over the Middlesex Fells and Blue Hills region to fix open boundary lines that would include dominant landscape factors, and where roads could be established when needed. We also selected many of the reservation, hill, and other locality names after a study of Indian tribes that once occupied the region, and the early day historical incidents.

In 1885, I visited relatives in Lake City, Minnesota, on Lake Pepin in the Mississippi River, and at Shulesburg, Wisconsin, near the lead mines regions of Galena, Illinois—a new geological formation and plant region for me. My cousin, Sadie Manning, at Lake City, had published a list of the plants of the region; and Cousin Georgia Manning drove me over the Shulesburg, Wisconsin, and Galena, Illinois lead regions with horse and buggy.

One day when Cousin Sadie and I were driving near Lake City, the sky was filled with rapidly tumbling, rolling, and twisting clouds, with a constantly changing peculiar greenish, graying, and reddish coloring. A fierce wind tipped out buggy onto two wheels and blew straw into it from nearby piles. We were on the fringes of the Rochester, Minnesota, cyclone some thirty miles away. People returning therefrom brought finger-size tree branches through which a grass straw had been driven, and a photograph of an eighteen-inch tree through which a ten-inch wide board had been driven with its edges vertical, so that half it was sticking out of each side of the tree.

It was said that a house had blown away with the exception of one partition on which was an unbroken looking glass, and at the base of which was a badly broken stove. Cows were blown over the fields, and their horns driven into the ground and broken off. A man and his two-horse-wagon were blown into a tree top, but he got out alive. In places

the grass was blown off of the ground so completely as to leave a smooth earth surface.

That same fall I was at church in Shulesburg, Wisconsin, when a heavy black cloud appeared on the horizon with a dull distant rumbling roar. The pastor closed the services and told his people to seek places of safety. We went home, ready to go into the cellar if necessary; but the cyclone did not come our way. It was said that there were some big cistern-like cyclone cellars in the region.

In Lake City, Minnesota, there was a wide belt stripped of trees down both of the high Mississippi River bluffs, by a cyclone a few years before.

From like observations and experiences, that later covered every state in the union and several in Canada, together with much varied collections, already referred to, that began in youthful days, were of real educational value. I feel strongly, as already stated, that such activities should be made a much more dominant factor than they are in the educational systems of today. My teachers gave almost no attention to such activities.

CHAPTER IV

OLMSTED OFFICE EMPLOYMENT
(Jan. 1885–Dec. 1895)

As a "Landscape Gardener" in my father's nursery I learned that much more than a knowledge of plants and plantings was required in the study and development of far-reaching landscape, regional, and community planning projects. My four brothers were with my father; and I became convinced that I must find a place with the most eminent man in the landscape profession—Frederick Law Olmsted—so I applied for a position in his office early in 1888.

While I was persistently following up my first applications, I was increasing my business knowledge in the Music Printing office of my nature loving friend, F. H. Gilson, in Fort Hill Square, Boston, where I set type, edited The School Music Journal, and prepared several illustrated pamphlets with history, pictures, and music pertaining to such popular songs as "Home Sweet Home."

In January, 1888, I was called to the Olmsted office and asked to prepare plans for about sixteen widely-scattered properties. This meant work under great pressure, at home, on the train, and at the Olmsted office where I soon had several assistants. There were conferences with members of the firm and clients on their home grounds and at the office.

Mr. Olmsted's combined home and office was, and is now on Dwight Street, Brookline, Mass., on less than two acres of irregular ground. An old homestead was used for Mr. Olmsted's home and in part for the office, to which rooms were added for drafting, storage, and other uses. There was a front-door entrance drive and walk, with an evergreen garden at the right upon entering, in a depression below a ledge. To the left and around the building was a varied planting about an irregular lawn with a steep bank back of outbuildings and the office additions. There were no formal

gardens here. One day, I heard a woman with her little girl, a footman, and a coachman stop her outfit to see the brilliant Rhododendron flowers in the grounds. She said to the little girl, “Mary, get out and break off some of those flowers for me.”

The answer was, “Mother, I don’t want to do it. It would be stealing.”

“John,” the footman was ordered to, “Go and get some of those flowers for me.” And John did.

My first Brookline home was on Fairmount Street, near the above office, where my son was born. Here, and at two other homes that I owned in this town, the plants that I planted still persist—some being rather uncommon. On two sides of the Olmsted property was the Mrs. John E. Gardner estate with its notable planting that included fine old Rhododendrons. Not far away was the Codman estate, the home of Henry S. Codman—one of the Olmsted partners. Then came the estate of Professor Charles S. Sargent, upon which he had developed some of the most beautiful landscape values in America with a varied flora, in which there were notable broad-leaf evergreens. His interests here led him to be chiefly responsible for developing the Arnold Arboretum—his outstanding life work.

There were numerous other fine estates in this vicinity, including the home of H. H. Richardson the great architect. Then came the Jamaica Pond Park Holdings on which was then the home of Mr. Francis Parkman, the eminent author to whom I was introduced in his home by Mr. Codman. Rare plants that Mr. Parkman had introduced are still about the house site.

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At one time there was a favorite cat in the office; and I remember a very important conference on the Stamford University plan, at which Senator Stamford and the architects were present that was held up a bit so that he could attend to this cat's urgent appeal for comforting pats and words.

Mr. Olmsted proposed two sites for this University, one in the Palo Alto foothills, where a most picturesque grouping of buildings with varied and attractive outlooks could have been obtained; the other, the accepted site, was on nearly level valley lands where there could be a more rigidly formal and readily accessible arrangement of the buildings. One of my problems was to make a planting plan for the big formal courtyard, without having been to California. It was a great gratification on a later visit there to see how well the planting of palms and other subtropical plants conformed to Mr. Olmsted's vision in design.

On one of our long journeys, he talked of his experiences as a young man when he sailed before the mast to the China Seas. His captain had been wrecked on a previous trip on the coast of China and had expected that the provisions he had salvaged would be sold. On this voyage, he found they were unsold, so he took them on board and disposed of his new supply. Mr. Olmsted said that much of the meat was so rotten that even the old time sailors could not eat it and would throw it overboard. His most acceptable food was biscuits that were filled with white maggots. He would break up the biscuits in a bowl of hot water, skim off the maggots, and then eat the biscuit stew. He became so sick that he heard the mate say to a sailor, "The end is so near, we may have to drop him overboard tomorrow." But the captain took him into his own cabin, and he recovered.

Another story that he said he did not often tell, because it did not seem true, was that a day was so hot as to melt the solder in the bottom of a tin dipper full of tacks, so that it fell out on deck while he was tacking a metal strip onto a boat. An old tar, who was on the ship with

him, came into his Central Park office in New York, some years later, and was asked if the experiences of this voyage were not unusually bad. He said, "No. I have had worse experiences than we had on that cruise."

Mr. Olmsted was not a finished draughtsman or a botanist. He would make rapid sketches and plans with indications on surveys and verbal and written explanations that would be sufficient for his office aide to interpret his intent. During our conversations in a dining car or at a hotel, he would often make quick little sketches on a napkin or a menu that had no bearing on our words. They would usually represent objects in the landscape, such as trees, structures, and walking or flying creatures. He could not identify and name the major part of the growths in any locality. He did have a most intimate knowledge of the landscape values of plants. For example, at Biltmore there was a woodland along the side of the main entrance road where he wanted a ground cover that would give glinting light effects on leaf tops and wide leaf shadows. Our dialogue was about like this:

"Rhubarb?" I suggested.
"No. Leaf too coarse and wrinkled."

"Hellebore?"
"No. Leaf too deeply cut and dull."

"Large-leaved Saxifrage?"
"Yes. That's the ideal plant for the place."

At another point he asked me about gray-leave plants as he wanted a color gradation in grays to give longer perspective values in a vista.

"Silver-leaved willow?" I suggested.
"No. Too tall and broad-spreading."

"Olive?"
"No. Not hardy enough."

"Hippophae?"
"No. Too low and bushy."

"Russian Olive?"
"Yes. That's just the thing."

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Mr. Olmsted had a marvelously penetrating, far-reaching and retentive mind for absorbing the controlling factors of a problem. In his study of a project, if he found that a controlling factor had been omitted, he would not patch up his studies to include this factor but would throw aside the work already done and begin his studies all over again. He always endeavored to secure complete data as to the client's interests, desires, and needs, and of all the conditions that had a direct or indirect bearing on the problem. He would gain this information by his conversation with many people, by drawing out their points of view in what appeared to be an ordinary conversation, which, however, was skillfully directed as to gain the desired data without any appearance inquisitiveness. The manner in which he checked up his information was represented by an incident which occurred when he was examining a real estate project in the Hudson River Valley. The conditions led him to fear that there were malarial conditions which would have to be corrected by extensive drainage; but the proprietors insisted that malaria was unknown in that vicinity. The next day in his personal examination of the property he heard a group of children playing on the other side of a fence, and he listened. A part of the game was being sick; and one little one said, "Doctor, I am cold, and hot, and shivering;" and the child doctor said, "You have chills and fever, and you must take this dose of quinine." This led to a checkup of conditions which proved that Mr. Olmsted was right.

Mr. Olmsted's City of Boston plan was well advanced when I entered the office. His purpose with respect to the Back Bay Fens was to reproduce a typical fens or marshland unit with its growth of low sedges and grasses, and its marginal growths of low native shrubs. The more recent development of a recreational center, rose garden, and playfield shows how often an artist's plans may be changed, and his original intent defeated. In Central Park, N.Y., however, much of Mr. Olmsted's original design has been maintained and its constantly increasing in dignity and beauty. This is also true in Prospect

in Brooklyn, in Franklin Park, Boston, in the Capitol grounds, at Washington, and on some private estates.

At a Back Bay Fens Study Conference, a controversy arose between Professor Sargent and Mr. Olmsted about the character of the planting along the stream between Brookline and Boston. Professor Sargent wanted dominantly New England plants; Mr. Olmsted wanted suitable exotic kinds added.

The detailed plans which I made were a compromise, with the Brookline side of the stream carrying out in general Professor Sargent's idea, and the Boston side Mr. Olmsted's.

He told me of his work at the Capitol, at Washington, where he was asked to plan the grounds. He had indicated on a model the stone terraces to replace turf slopes. The committee called in the architect of the building to pass upon the terrace. Mr. Olmsted said after some minutes in study, this architect turned and said, "It will be the making of the buildings;" so the plan was adopted with the exception of the use of Periwinkle as a cover for terrace beds, as one of the members said it would make the place "look too much like a cemetery." There was a tree that was at the edge of and a little higher than one of the walks that Mr. Olmsted wanted to cut; but Senator Morrill said, "Mr. Olmsted, that tree has been here as long as I have, and it will be there after you and I are dead." It was still in place at my last visit there.

Mr. Olmsted in conferences with clients indicated the most important factors in the design of their projects to gain their reaction. On a Lenox, Massachusetts, estate, he called patches of purple, yellow, and variegated foliage in a green border plantation "garish;" and this so offended the client that Mr. Olmsted was not called in again. This was the only incident of this kind that occurred while I was with him.

At the Cornelius Vanderbilt place in Newport, Rhode Island, one problem was to find an unobtrusive way of stopping people from coming to the house porch and looking into the windows from the public walk on the shore bluff.

This was done by lowering the walk and planting prickly low shrubs above it on the bank that would screen people on the walk, but not shut out the sea view. There was also the rearrangement of boulders and the cutting of trees to give others room and to open up views. I found Mr. and Mrs. Vanderbilt very reluctant to have any trees cut—this being true of many of my clients.

I sided Mr. Olmsted in landscaping the George Vanderbilt home at Bar Harbor, Maine. The house was on nearly level upland above the seashore cliffs. Mr. Vanderbilt wanted natural conditions reproduced. This was done with collected clumps of such plants as Huckleberry, low and high Blueberries, Sheep Laurel, Bayberry, Wild Roses, trailing Blackberry, with gravel and leaf-covered trails through the shrubbery. Mr. Vanderbilt was much pleased when his visitors complimented him on having been able to secure and hold such a charming unit of natural growth.

Mr. George Vanderbilt also called on Mr. Olmsted after he had purchased a hill slope and valley farm south of Ashville, North Carolina, to control a notable view over the valley of the French Broad River to the Mt. Pisgah mountain range. This was the beginning of his Biltmore Estate. Mr. Olmsted recommended additions to this purchase to include notable landscape features, broaden and protect the outlook and provide for entrance roads, and for the Biltmore villages. Several of us climbed to the top of Mount Pisgah to gain a better knowledge of the land to be acquired. We passed wild pigs along the way, and as the heights increased, northern plants came in. On the top was a cover of the Mountain Andromeda that I had never seen growing wild before.

Mr. Olmsted and I were the guests of Mr. Vanderbilt and his mother, who made us one of the family in a very gracious way in the old farm house in the valley. Mrs. Vanderbilt had the same high appreciation of beauty in landscape as her son. This visit occurred during the construction of the mansion, and one incident in this connection I well remember. Mr. Vanderbilt, Mr. Richard

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M. Hunt, the architect, and Mr. Olmsted were looking over the house plans when Mr. Olmsted said, “This house should have had a broad terrace from which the outlook can enjoyed by a large party.” Mr. Hunt answered in very lurid language, “It would not be in keeping with this type of house.” Mr. Olmsted said, “Then you have made an error in your selection of the house type.” During this argument, Mr. Vanderbilt watched his two designers with amusement in his eyes, without interjecting a word. An open terrace at the southerly end of the house, above the first-floor level, was the compromise.

Mr. Olmsted interested Mr. Vanderbilt in establishing on the Biltmore Estate a collection of all the woody plants that were likely to be hardy there. It was my job to make such a list with most of the horticultural varieties of such plants as Azaleas, Roses, and Rhododendrons omitted. There were 15,000 plants listed in nursery and other catalogs, and about a third of these were found to be synonyms. Of the approximately 10,000 ordered, there were about 500 duplicates.

Then came the plans for the Arboretum planting on the grounds along the sides of mostly new roads, with loop roads for conspicuous color and form departures from the type plants. Over eleven miles of roads were required, and also “Arboretum Squares” on the river bottom. The roads, and Squares, were mostly in woodlands and are on a topographic map of the estate dated December 1895. This project was never completed, but the plants have been placed in positions where their behavior could be observed.

The forestry problems in this study that included the harvesting of timber for the construction of a railroad from Biltmore village to the house site and for other building uses were considered with Mr. Gifford Pinchot who later gave such distinguished service to National Forestry Interests,

and as Governor of Pennsylvania. I believe his first book on forestry in which a profit was gained from forest operations pertained to Biltmore.

In superintending the planting in the construction period, I had the use of the railroad trains, horse-and mule-powered vehicles, and at times as many as 200 white and colored men. We found more colored men could sign their names than white men. While such plant material came from outside sources, the dominant plants were the collected native Rhododendrons and other broad-leaf evergreens from on or near the estate, of which many thousands were planted, especially along the main entrance road.

The work was under the general oversight of Mr. Charles McNamee, Mr. Vanderbilt's representative, and Mr. C. D. Deadle who was named by me as a suitable aid, and who has for many years been in charge of the estate. I, of course, kept in close touch with my Olmsted office. In the beginning, it was a region of muddy roads in spring. I was on horseback most of the time. An interesting mud story was about the people who saw a hat in a mud puddle in the Ashville square. They picked up the hat and found a man's head under it. They dug the man out, and the horse he had been riding on. Some deep mud you see!

The collecting of Rhododendrons takes me to the H. McKay Twombley Estate, one of the Olmsted placed, at Madison, New Jersey, where I first undertook this in a large way. My brother, William S. Manning, was put in charge here, and we believed such plants could be moved successfully if properly selected and handled, even though it was not then considered practicable at the Arnold Arboretum. My brother went to Pennsylvania and explored for many days until he located large plants in open land where fine balls of earth could be secured and held on the roots, and where many had been killed to the ground by fire about six years before, and had made fine new vigorous tops.

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Since this period, thousands of carloads of such broad-leaved evergreens, of Azaleas, and other collected shrubs and trees have been shipped over much of this continent by commercial collectors in many states. Such material and the more varied plant material that is offered by nurseries in every state and in most of the large towns, should make this country the most beautiful one in the world in a few generations, when we come to appreciate floral and plant form and sentiment as the Japanese do.

The planting of large numbers of nursery-grown Rhododendrons, at high cost, at the William Rockefeller place, Rockwood Hall, at Tarrytown, New York, in 1896-7, to increase the interest of the woods along trails under deciduous woods below the house terrace, on slopes down toward the Hudson River, led me to consider the use of collected plants.

In 1891-2 while in the Olmsted office, I aided in the development of the plans, particularly the planting plans, for the Chicago World's Fair with Mr. F. L. Olmsted, Sr., and Mr. H. S. Codman. Mr. Olmsted was especially pleased to be able at this time to carry out the Jackson Park Pond into Lake Michigan as a Lagoon, as proposed some years before in his Chicago Park System study which he had not been permitted to execute. One of the interesting problems here was to fix lake water levels at the opening period. There is about a seven foot rise and fall in the lake in approximately seven-year periods, and it was going down. The estimated level at which wharves, shore planting, and the informal Japanese building and gardens were placed was satisfactory. Advantage was taken of existing growths of trees and shrubs in locating some state and other buildings informally. The dominant buildings were formally arranged about the rectangular lagoon with planting at the base of the terraces.

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On the way to the Olmsted office, from the Cypress Street horse car line of that day, were the Kennedy and the Bowditch estates, with fine old trees, an ancient cemetery well above the road, and a church with tree and moss-covered ledge background.

The Brookline Reservoir with fine estates about it, having distinctive landscape values that were designed in part by the Olmsted office, was nearby. The Arnold Arboretum was not far away. It can be seen that such opportunities offered me an unusual chance to gain a knowledge and appreciation of landscape and plant values.

In the office of Mr. Olmsted, I was associated with his son, John C. Olmsted, Frederick Law Olmsted, Jr., Henry S. Codman, Charles Eliot and other aids who have since made their place in important professional activities. This association gave me an unrivalled opportunity to gain a far-reaching knowledge of the highest ideals and the best practice developments of landscape in its broadest phases. A member of the firm for whom I had the highest admiration was John C. Olmsted, with whom I traveled on many projects. He was quiet, thoughtful, and most efficient in gaining a full knowledge of all planning projects, and in seeing that they were well planned, recorded, and issued. Mr. Frederick Law Olmsted, Jr. entered upon his career about the time that I started out for myself.

Mr. Eliot's death in early manhood was one of the greatest losses that has ever come to the landscape profession. His planning conceptions were nation wide, yes, world wide. His ability to secure the support of the public and the legislature was made very evident in his Boston Metropolitan Park work. He would have had like results in National Planning, in which his namesake Charles Eliot II is now so active and efficient. It is fortunate that his father, President Charles W. Eliot of Harvard College,

was able to record his son's work in his "Life of Charles Eliot." Mr. Eliot recommended to me that I adopt the term landscape designer, as the term landscape architect made it appear that the profession was secondary to architecture. President Eliot had me make a plan for his home grounds on Brattle Street in Cambridge, Mass. One of his stipulations was that he did not wish a high screening plantation along the roadside as it was part of his pleasure to see the public passing by.

Another great loss to the landscape profession was the early death of Mr. Henry Sargent Codman of the Olmsted firm. He was a man of high culture, who was in love with his work. His resourcefulness in an emergency was shown in Chicago, when Mr. F. L. Olmsted came to us from a meeting of the World Fair Commissioners with the story that they wanted to include in the fair grounds Jackson Park, the Midway, the Driving Park, and so many other areas that Mr. Olmsted had told them it was not a feasible proposition; but they were very insistent, as they wanted this Fair to be the biggest event of its kind. Mr. Codman said, "I will figure up the length and the cost of the fence around this area," which he did at once. These figures brought the promoters down to earth and led them to accept the land and water areas which Mr. Olmsted had recommended.

The greatest privilege of my life work was the opportunity to travel with Mr. Frederick Law Olmsted, Sr. and to aid him in gaining a knowledge of project requirements and conditions and in formulating plans. He was always a cheerful and congenial companion and extremely thoughtful of other. I recall one of our visits to an estate in Newport, Rhode Island, with the owners. Mr. Olmsted usually carried a lunch with him on such trips; and on this occasion he insisted on sharing this with the driver of our vehicle who had not brought any. He always had a pat and a pleasant word for all friendly four-footers.

OLMSTED OFFICE EMPLOYMENT

My work on the plans for this 1893 Exposition, and on the juries that passed on exhibits of landscape gardening, nursery, and herbaceous plants, enabled me to write for Prof. L. H. Bailey's Annals of Horticulture for 1895, on "Plants On the World's Fair Grounds" and "Jury Organization Values," and to list 2300 species and varieties that were exhibited, with the exception of Roses. There were 59 exhibits of hardy plants, other than Roses, of which 18 were from abroad. There was also a combined exhibit from 27 Dresden dealers that included Roses, Azaleas, Camelias, and Lilacs.

Professor Bailey says, "The general landscape features of the Exposition exceeded in boldness, originality, and artistic merit anything heretofore attempted in the New World, and the effect must stand with the masterpieces of the World." He quotes Mr. J. G. Jack's article in Garden and Forest, Volume 1, in which Mr. Olmsted said that over 1,000,000 plants had been planted on the grounds. There were 75 carloads of collected sods and native plants—525,000 of such plants as Willows, Japanese Iris, Ferns, and native herbs planted around the Lagoon.

Professor Bailey also refers to other foliage and floral values about the grounds, and especially to the planting about the Massachusetts building that was put in place by my father, Jacob W. Manning, from the design of my brother, J. Woodward Manning. A medal was awarded for this.

At a later period, Mr. John C. Olmsted of Brookline, Mr. Daniel H. Burnham of Chicago, and I were asked to select the site for the Pan American Exposition at Buffalo, New York. Our first choice was on the city lake shore, as buildings could be better utilized at the close of the Exposition. There was a chorus of questions as to the Scopolochers or May Flies which would swarm over walks, windows, and people, as well as get into buildings and exhibits during the opening weeks. Flares and screens were considered; but this condition was likely to be such a handicap that it was decided to have

the exposition in the city part to be away from these lake shore pests. This emphasized Mr. F. L. Olmsted, Sr.'s contention that what may appear to be a minor factor may become a controlling one in planning decisions. This decision was partly due to my observations at Lake Pepin, at Lake City, Minnesota, where a stinking belt, three to five feet wide and several inches deep, of these May Flies had been washed onto the shore.

I worked with Mr. Olmsted on both the Buffalo and Rochester Park systems. At Buffalo, an arboretum study was made for Seneca Park that was not executed. Plans were made for planting the much varied hill valley and shore parks of Rochester, and for the Highland Park Arboretum which was very successfully established and maintained by Mr. John Duncan, under Mr. C. E. Laney, the very capable park superintendent, who told me that the unusually large number of visitors into his parks came largely from "love of praise." For example, he would located a lover of dogs who had many friends and would invite him and his friends to put on a dog shoe for which they would be given credit by the press.

My study for the above and the Biltmore Arboretums, my many visits to the Arnold Arboretum with its heavy costs, and to other widely scattered plant collections has persuaded me that we should set about making our whole country an arboretum. This should be done with the aid of all national, state, and town park authorities, foresters, botanists, garden clubs, and all governmental and private owners of large areas of wild land, farm land, or developed large estates, as well as the small lot owners in cities and towns.

This would mean the location and preservation, by gift, purchase, or easement, of notable forests and groves and specimen trees, shrubs, and wild herb gardens growths especially when they can be seen from public.

<MISSING WORDS or PAGE(S)> highways, park roads, accessible wood roads, bridle paths, and bikers' and hikers' trails. The plants would be given numbers to be identified in small low cost handbooks, the sale of which would give cash returns.

Such plant material could be deeded to organizations that would be responsible for the care and cataloging of the material, and would gain the right to the use of the land so along as the plants lives. It will be found that many owners will be glad to do this as the preservation of such beauty will add to land values. Such gifts may well be designated as memorials to the donor and friends, or to an organization.

In towns, each street may be given special floral, foliage, fruit, or twig distinction by using one group of plants for Spring, Summer, Fall, and Winter effects. There could be a Lilac Street, with Lilac trees for summer flowers, and the 250 spring flowering kinds, so distributed in the house lots, or at the boundary line of a wide street, as to make a notable Lilac Street in which the specimens could be examined from the road and sidewalk without encroaching on private grounds. Mountain Ash could be alternated with the Lilac tree for the street side for its summer flowers and autumn fruit. Red or yellow twig shrubs or some winter fruiting shrub could be used for winter color effects. There might even be a Lilac town with a different variety for each street. There are plenty of plants to give each town and its street special floral distinction; for example, Roses, Spireas, Syrings, Peonies, Phlox, Yuccas, Wisterias for the north, and Oleander, Nandina, Pittosporum, Grape Myrtle, and Boganvilles for the south and Pacific coast.

While with the Olmsteds, I also made plans for the Louisville, Kentucky, parks—each of which had special distinction. Shawnee Park is on the Ohio River bank, with sloping open lands and groves of trees and attractive views up and down and across the river. Cherokee Park is a valley park with a wide stream passing through it and many fine beech and other trees on the

slopes. The road is in the valley bottom near the stream where it is occasionally covered with high water. Jacobs Park is an inland, high, wooded hill with a rather broad stretch of rich, slightly rolling land at its base, on which was the finest growth of tall, old Beech that I have ever seen. They had very tall, tapering, smooth gray trunks and an arch of dainty, curving branches away above the aisles between the trees. The grove was notable in early days that "D. Boone" and "Z. Taylor" carved their names on trunks here. It was a great pleasure to work with the Park Commissioners there. General Castleman typified the ideal gentleman of the South in his appearance, in his genial, courteous manner, and in his intellectual attainments. His wife was a delightful hostess and he had two very beautiful daughters. Colonel Belknap was another gentleman and business man of the highest type, as was also Mr. Shirley, the third member. I refer to this as I was called to Louisville by clients to plan estates.

The zoological gardens as Washington, in Rock Creek Park, was another project of great interest for which I helped the Olmsteds to make plans. Here was a valley with steep bluffs and high ledges on either side. The problem was to aid in locating the animal enclosures where they would be attractive, accessible, and safe; to establish plantations, to cover raw banks, and relieve the bareness of the walls and cliffs, and to provide convenient ways into the valley for the public and for service. One plantation I remember in particular. This was a rather long group of the Kudsubean which was planted in pockets of soil high up in the rock cliff. When I was last there, it had made a vigorous growth and its long stems and large leaves were draping much of the face of the ledge.

At a later period, in my own practice, I was asked by Mr. Hornsday and Mr. Osborne to aid in planning the New York Zoo in Bronx Park, where many buildings had already been erected. There were many other buildings and enclosures to be located with a view to future additions.

There were also planting problems, the preservation of existing tree growths, and in the establishment of new trees and shrubs about buildings and along boundaries. Here there were no high ledges and steep slopes as at the Washington Zoo.

A special type of project with which I was concerned both during the days when I was with the Olmsteds and for some years afterwards, was the designing of street railway amusement resorts. These were sponsored by the street railway companies with a view to increasing park traffic and of gaining revenue from the resort. Plans for such resorts provided for all forms of recreation for which a place could be found on the holdings—ball fields, children's playgrounds, and especially facilities for picnic parties. One of the first of these projects with which I was connected was that for the Rittersville Land Company, at Allentown, Pennsylvania, in 1891. This railway recreation park was on a hill slope area which was planned in part as housing development. The following year I made a study for Highland Park in Brockton, Massachusetts, where the original dancing pavilion still exists. Only recently a lady of my acquaintance was telling me of the wonderful times she had there as a child. Admission to the grounds was free, but small payments were made for such special features as the merry-go-round. She remembers the den of bears, the flower gardens, and the roller coaster. In 1893, I made similar plans for Balche's Grove in Lawrence, and Baker's Grove, in Haverhill, Massachusetts.

With the elimination of the horse car, and many electric street cars, most of these amusement resorts have been given up entirely or have become much changed in their use; In their day they played an important role as the predecessors of the present recreation facilities of the public park system. Moreover, the time may come when railroad lines, bus, and aircraft

lines may establish similar resorts with new forms of recreation such as speed boating, parachute jumping, skiing, tobogganing, and coasting. Snow and ice recreating may even come in summer on mountain tops and in the perpetual snow and ice regions of the Arctics. There will also be biking through wonderful wild flower gardens and zoos, and places where people may see the bears in Yellowstone Park, and the deer at Pinehurst, North Carolina, and on Grand Island at Munising, Michigan.

At such resorts there will be automobile trailer camps, and camps for autoists without trailers, landing fields for the autogiro, and taxi planes from nearby flying fields. Although such resorts may be brought about through private initiative, the trend will be toward closer cooperation between the private agencies and public transportation agencies and the directors of the national, state, and local public holdings where such facilities are or can be provided for, with fees that will cover costs and permit expansion in much the same manner that the state of Indiana has been doing with its state parks and the State of New York at Jones Beach and other resorts.

PRIVATE ESTATES

CHAPTER VI

EARLY PROFESSIONAL PRACTICE
Jan. 1, 1896–June, 1901)

When I had determined to established an office of my own, I asked Mr. Olmsted, Sr., if he thought I would be successful. He gave me much encouragement by referring to the knowledge I had been able to acquire of motives, methods, materials, which were essential to good design and successful execution, and with reference to my persuasive ways with clients. "But," he said, "You will not be much of a draftsman, Mr. Manning." I told him that I was not much worried about that, as I would be able to employ such skill as he had done.

A major surprise of my life was to find how many of the Olmsted clients asked me to undertake work for them when they learned that I was to establish an office. Some were requests for continuing work that was being prosecuted by the Olmsted firm which I, of course, would not undertake without their consent. Several of these projects the Olmsteds did turn over to me, especially where the work was chiefly the finishing of planting plans that I had been responsible for. There were other of their clients who had new projects which they wanted me to undertake, in some instances through the recommendations of the Olmsted firm. Altogether, there were about fifteen undertakings that came to me in this way.

In January, 1896, my first office was on the top floor of the Studio Building of Boston Common and the Granary Burying Ground. When the Tremont Building took the place of the Tremont Hotel, I moved my office to the Granary Burying Ground side of its top floor, where I had several rooms. Here the view through the tree tops to the spires of the Park street church, and the sunsets of the westerly skies were all a part of the pleasure of the office.

From June 15, 1901 to December 31, 1904, I was in partnership with my brother, J. Woodward Manning. He drew out at the death of my father to

close up the Reading Nursery with the aid of my brother A. Chandler Manning; and he then established a nursery at North Wilmington. He is now the only one of the four brothers who is living; and he has a very choice collection of garden plants on Crooked Lane, Duxbury, Massachusetts, and a landscape gardening practice in that region.

My next office was at North Billerica, Massachusetts, where I put up a large octagonal office building, with wings from five of the octagon sides, and a cottage. Here I had at one period as many as thirty employees. We could get to Boston readily on three electric car lines, or to Lowell. When the electric cars were abandoned, and it was necessary to take buses that ran at two-hour intervals, and then an automobile, the office was moved to Cambridge, Mass., in Harvard Square, where I have been since 1923.

At North Billerica I had a large land holding, on which trails, views, and vistas, were opened and some planting done with the aid of office employees who were frequently taken out on such work as a part of their training. The interest that first brought me to North Billerica was the home of my ancestors that was built in 1696 and occupied by the family, or held by Trustees as provided for by Lucinda Manning's will—the income to be used for teaching the Orthodox faith in that district. The house was in bad condition; but I repaired it; and it is now very close to its original condition. A Manning Association was formed to hold it as the shrine of the Manning Family, that is recorded in the Manning Genealogy. The builder of the Manse was the grandson of William Manning of England, who was in Cambridge, Mass. in 1634. My collecting activities for many years led to the accumulation of many thousands of relics, letters, and documents from the Manning descendants. For thirty years, there have been annual family reunions at the Manse. It was found necessary to make additions to enable it to serve as a Tea Tavern to cover maintenance costs.

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My private estate work has been of great importance to me, as it has put me in contact with all types of people in intimate ways; as the home and its grounds—big or little—was one of the greatest interests in the owners' lives as a break away from their income-producing business or professional activities. It is a far-reaching game, this competing with others in establishing finer and more original design in construction and upkeep for the home grounds, outbuildings, and the life therein; from the estates with a big home, stable, garage, greenhouses, gardens, lawns, forests, and lakes, down to the city lot homes—even though they have only a backyard to play with.

Too many times, these pleasures may become burdensome from more than one point of view. Clients have called me in to know what they could do with their home estate that had come to be more of a burden than their business. They had to consider such questions as disposing of the property, securing a less elaborate home, reducing great lawn areas, greenhouses, and encouraging self-supporting wild land conditions. For some clients who had secured plans for great houses that involved expensive approach roads and grounds, the suggestion was made that they live in cottages already built for employees. To some clients, their home have proved so satisfactory that the great mansions were not erected.

I have always endeavored to prevent extravagant developments that involve expensive and troublesome upkeep. How far this has been appreciated I can hardly say, except that I do know that the greater part of my 1700 projects have come to me through the recommendations of clients, with very little solicitation on the part of myself, employees, or friends. On great estate, little home ground, public and semi-public projects, it would be best if only such units as can be maintained in the highest perfection with the income and the labor that is readily available for such

units should be undertaken. One perfect garden, lawn, tree, shrub, herb, plantation, or playground is, of course, better than several that are not well cared for. Upkeep activities should be listed in the order of their importance when the highest standards cannot be attained.

A great pleasure may come to many who can, from home or other buildings and the grounds, open up vistas, views, and framed in pictures from many viewpoints, including windows or even through small windowpanes. A viewpoint move of a very few feet or even a very few inches will often make a marked change in the picture.

In such work, especially in residential areas, there is a need of cooperation with neighbors in such work as opening views across adjacent lots. When opening these pictures, it is extremely important to get the right tree or branch, for they can seldom be replaced when removed. Small branches or even a single leaf fluttering in a frame in opening will often have to be removed. When the distance to such cutting is considerable, a field glass is used. The branches or trees are sprayed so that they can be identified from the viewpoints. Swinging of the arm horizontally means do not cut. Swinging it vertically means cut it.

In addition to vistas and views, there is a great deal that can be done in adding to the beauty of the large or small places by grubbing out and trimming trees and shrubs that interfere with the view of fine individual trees, groups of trees, and shrubs, and ground cover plants. It is usually very difficult to get people to cut trees, even those that are so crowded that they are ruining each other or shutting out air, light, and views. Well do I remember a few clients who were quite ready to remove trees after very careful consideration had been given to each one by examining it from every point of view.

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Mr. Thomas Lowry of Minneapolis, Minnesota, who in his summer home at Monticello, Minnesota, cut trees about the home, and in long vistas through woods to distant views; Mr. Cyrus H. McCormick at his Walden estate, at Lake Forest, Illinois, and Cornell University are all referred to elsewhere.

Many times, estate owners prefer to, or find it necessary to, exclude the public, as many people will greatly injure or destroy flowering trees and shrubs by breaking off great branches of flowers that soon fade, or pick other flowers or fruit that the owner wants to enjoy. At one fine estate that the owner wanted to keep open for the public, horseback riders from a military post raced over a bank plantation, and there was so much injury to plants that it was necessary to close it—excepting on days when guides could be with the visitors.

A situation is developing whereby the immense national debt and that of many states and lesser governmental units will draw upon the income of business and professional men so heavily that it will be increasingly difficult to develop and maintain such estates as I have referred to. Many owners must sell holdings or turn over a part or all of their property for public or semi-public use.

Many of such properties are so located that they would be ideal places for low cost homes of the Greenbelt Community types, that are under way near Baltimore, Milwaukee, and elsewhere. Such homes should produce garden crops for most of the household needs, with goats, rabbits, and fowl in some places, with the prospects of big kitchen crop yields on small areas from fertilized water in pans without soil. On such large private estates are water supplies and sewage disposal facilities, and nearby traffic ways.

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In such a development, places for recreation, education, and inspiration would be set aside.

About many of our cities are such estates that are large enough, or that could be combined with adjoining estates so as to create an ideal region for such a development. The mansions and service buildings in such as development could be arranged to be the centers of community activities—as represented by Community and Get-Together Days, social, fraternal, religious organizations. There may also be dining facilities, sales counters, and places for visitors to spend the night. The problem of organizing and protecting such a development and the people thereon will be of fundamental importance.

There may be a stock corporation with its committees to pass upon the community and membership action, with an arrangement whereby every person who leases or buys property would sign an agreement to sell it back to the corporation at an agreed upon price if the majority so voted. Undesirables may thus be eliminated if they should get by the capable adviser whose job it would be to look into the background of all prospective home tenants or home owners. Such an adviser should also lead the people to so bank their money as to pay for the home and its enlargement and equipment to meet the growing needs of the family.

The problem in such developments will be to provide a very low cost 5 or 6-room house and a garage, of which two rooms could be built first—for families with an income under $1000 or $2000—for a man and his wife with a baby, and to which other rooms could be added as the income and the family increased. The lots should not be much more than 60 by 150 feet, as larger lots cannot be maintained with the labor of the family. In a 50 x 50 feet garden, a dozen vegetables can be grown, without corn, potatoes, and asparagus that may be grown in a community garden plot.

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On the lot outside of the kitchen garden, the planting should all bear edible fruit, or be herbs with foliage, flower, and flowering value of which about 60 are listed. There may be several fruiting types of grape vines, some having fragrant flowers. The fruit trees, quince, peach, plum, pear, and Apple, could have two or more varieties grafter on each tree. A quarter of the apple could be early or summer fruit, another quarter fall fruit, and half of winter fruit for storage. Luther Burbank grafted 26 varieties on one apple tree. There would be Gooseberries, Currents, Dewberries, and Raspberries. For the front lawn, there could be high bush Blueberries in the new big-fruited varieties, low Blueberries, Huckleberries, Dwarf Juneberries—all with flowers, fruit, and brilliant autumn foliage. The Rugosa Rose could be used, as the fruit pulp is eaten in Japan. On Japanese Quinces are fruits for preserves or jellies.

We must consider the needs of the owners of big estates that are too expensive to maintain, who will need another place to which they can retire for change of scene and rest and recreation. The airplane will open up a much wider radius of accessible land beyond the city suburb regions than were opened up about a generation ago by electric cars and automobiles. We may look forward to the time when the low cost, safe planes can be used to taxi from the airports, from main roadside landing strips, from small landing fields in and near the city, and from some city roofs to pass 100 miles or more into the country quicker than automobiles can now go 15 or 25 miles to suburban residential districts. It will be safer travel because people can dodge four ways in the air at different flying levels, whereas on the ground, the automobile can dodge only two ways on the one ground level.

Within this 100-mile radius of most of our cities, very interesting land units can be secured for a few dollars an acre with a much varied surface and surface cover where camps can be established. Such camps may

be made from the thinning of the woods to be used as wallpoles on both sides of which chicken netting is nailed to hold the plaster inside and outside surface. I made a building of this type, with outside plaster, near the Manning Manse—the Manning Family home in North Billerica—that has been standing for over 25 years with practically no breaks in the plaster surface. The roofs are made of ordinary shingles set far enough apart to save about one-quarter of the shingles, as usually placed. I also made a low cost metal roof on one building. I also have a building on which the walls are made of concrete slabs that are cast on the ground and held in place against outside timbers by spikes riveted over ferrels, that has stood up without impairment. Another building where poles were laid horizontally and shingles nailed to them is not standing up. Two of these buildings have concrete floors on the earth. The bad building has a wooden floor over a cellar, with sloping banks covered with cobblestones instead of more expensive vertical walls.

These experimental structures indicate how much interest a person can gain in such construction under his own direction or observation, to establish seasonal living quarters, until the time comes for the more conventional and durable house.

We may look forward to the time when people of wealth or organized groups of well-to-do people will have notably distinctive landscape and hunting units in widely scattered areas, from the arctics to the tropics, for seasonal, rest, and recreational uses.

Little do the people who have not tramped the woods for flowers, plants, and birds, and other wild life, realize how much beauty and variety there is therein. Usually in wooded areas, open land, and meadows, one will find over 500 or more kinds of flowering trees, shrubs, and herbs, ferns, and

creeping evergreens, and mosses. The interest and beauty of such plantations can be greatly increased by moving scattered plants into larger groups, and by tree and shrub thinning to bring out attractive evergreen tree, shrub, ground cover foliage, and flowers. Such native plantations can be greatly enriched by introducing garden plants that will establish themselves and give great masses of flowers, brilliant fruits, or autumn colors, without the maintenance care that is called for in the cultivated grounds about most homes. See references to such plantations on the estates of Mr. Cyrus H. McCormick and Mr. William G. Mether.

Many times, most attractive bodies of water can be made in mosquito-breeding swamp areas by establishing dams that appear to be the work of Nature. There will be the opening up of footpaths along lanes of special plant interest to attractive views, also bridle paths. There may be roads for the exclusive use of the horse and buggy or carryall, or even the tallyhoes, which are likely to come back again for pleasure riding. There may also be bicycle ways. There will be nearby air landings. There are now thousands of miles of foot and bridle paths in the mountains of the west and in the eastern Allegheny region. There is a footpath now open from Mt. Katahdin, Maine, and northern Vermont, along the mountain slope to Mt. Oglethorpe in Georgia, also mountain ridge automobiles roads for a part of the way. I compiled a survey of the Allegheny region for the horse Association of America, of Chicago, with a view to locating an Appalachian Bridle Path system; but the depression held this up.

There will be places for winter recreation in the northlands—for tobogganing, coasting, skiing, and skating. Such areas can be secured in some states, such as Michigan, Minnesota, and Wisconsin—where so much land has come back to the state for nonpayment of taxes—for as low as $1. or less per acre. Land can be secured within the 100-mile radius of many of

our cities, such as Boston, for $10. or less an acre. The State of Massachusetts has secured several thousand of acres of land can could secure many more thousands at $5. per acre—the maximum the State will pay for State Forests.

I have sold 150 acres of my land about the old Manning Manse to protect it at $5. an acre to form part of a State Forest. There are, of course, in many states, game sanctuaries where no hunting is permitted, excepting hunting with the camera—which is coming to be increasingly popular since Mr. George Shiras III, of Marquette, Michigan, whose grounds I planned for him, has secured and published such wonderful wild life pictures. Of course, in the selection of such a wild life estate, it may be found important to have such public reservations close at hand. One does not need to worry much about being far from a town then the airplanes as well as the automobile is available for errands and visits.

When in my father's nursery, an early landscape project from 1885 to 1893 was for the home grounds of Robert J. Kimball, of New York, who built at West Randolph, Vermont, the town of his birth, a fine hilltop home with a carriage concourse to which people were invited to gain the very fine views therefrom. Portions of his home grounds were reserved for the family.

Another important project in the 1896–1903 period was Dolabran, the estate of Mr. C. A. Griscom, at Haverford, Pennsylvania, who was to build a fine house; but he finally decided to modify the existing home on the grounds as a permanent home. Here were fine lawns and border plantations, and an old quarry that Mr. Griscom looked upon at first as a disadvantage. It gave an opportunity to establish an attractive framework of deciduous and evergreen plantations that gave this place special distinction. There was a formal garden edged with box plants from Holland,

from which Goutweed roots were picked out and sent to my Manning Manse place, in North Billerica, and planted in the woods where it gradually died out; and another barrel was sent to Ishpeming, Michigan, where it is taking possession of the woods.

From 1905–5, like advice was given to Mr. A. J. Cassett in the location and the planning of his summer home at Bar Harbor, Maine, in cooperation with Chapman and Frazier, Boston Architects. One of Mr. Cassett's special pleasures at Bar Harbor was rowing a boat in the bay with his little granddaughter. I was on one of these trips with them. Here, the house, the lawn, the formal garden, the children's gymnasium, the service yards, and a pier were located, with roads, walks, and planting. On the house location, it was found that quicksand under the site made it necessary to do most unusual work to secure safe foundations.

During this period, Mr. Cassett also had me make a study of the Pennsylvania Railway and station grounds from Philadelphia to Baltimore. This study included plans and recommendations for planting the stations and along the right of way, with the general use of Japanese evergreen Honeysuckle on steep slopes. Attention was also given to opening views to be seen from the trains and acquiring new land to protect such views and also to Lombardy Poplar planting to screen such objectionable features as large billboards and very undesirable conditions. Mr. Cassett told me that he had refused to accept large sums for the use of the railroad right of way or adjacent holdings for billboards, as he wanted the outlooks to be as pleasant as possible for passengers.

Mr. Cassett showed me, in his private car in the Boston years, plans of the Pennsylvania East River tunnel at New York, in which he said that he had recommended that his engineers provide a walk along the side of the tunnel for use of the passengers in case of accident. I said that I thought

the public would greatly appreciate this action for their safety. His answer was, “All the public is interested in is speed and comfort.”

Mr. Cassett, as a client, greatly broadened my point of view with his far-reaching vision in the administration of the Pennsylvania Railroad and other interests that he was concerned with, and in his efforts to five the public the finest service in all respects that could be provided. His interests did not include an intimate knowledge of plant material. He did, however, have a very high appreciation of landscape values—as indicated by his acceptance of my recommendations in opening views, and acquiring land to protect them along the railroad right of way.

Another greatly appreciated evidence of friendship was the fact that I was taken into so many homes as one of the family, not as a special guest and as a social asset, as I was seldom invited to formal parties. In fact, one of my friends, in speaking to a family association meeting, said that my principal defect was that I was not efficient in the social activities.

I must admit that I did not desire to be active as a special formal guest, as I did need to get a full night’s sleep. I also found too many times when I was made the guest of people who were not clients that their questions, as I was invited to examine their grounds, indicated that they intended, perhaps unconsciously, to gain all the advice from me that they could without paying for it. I presume that architects, engineers, doctors, lawyers, and other professionals occasionally find themselves in like positions.

Professional men, in common with all public-spirited citizens, do owe a duty to their neighborhood town, state, region, and nation that should lead them to give freely of their time and resources to advance the welfare of others through the improvement of social and physical conditions and the organization and direction of organizations that serve the community in many ways.

The spirit of today is more far-reaching in its altruism, in its desire

to aid people while we are on earth together, with less stress on the tortures and the glories of the hereafter as expounded by the salaried pastors of churches of the early days in the Protestant Faiths. They were often the dominant leaders and dictators in the social and religious affairs of their day, that extended well into more youthful days. Now, too many of such churches have come to be social centers and mutual admiration societies with but little coordinated action with other welfare agencies in the interests of the community, and with many churches being abandoned.

The Catholic Church, with its world-wide organization under the dominance of a central authority in Italy, seems to be gaining in this country.

The Mormons and the Christian Science faith give evidences of the far-reaching powerful influence of a personal leadership of an individual.

There may arise a leader of men who will have the inspiration and the power to coordinate the welfare activities of mankind so as to cover all the world through its intercommunication aids—as radio, the airplane, and television that is to come.

There always should be an oversight arrangement with the Landscape Designer on private and public properties as live plantations are always growing with volunteer seedlings cropping in to destroy the intent of the owner and the designer.

In small, private, and large private plantations, thinning should usually be started in from three to five years. It must be recognized that the constant plant growth in the Landscape Designer's conceptions in his fine art of conserving and creating landscape and garden scenic and use values may defeat his conceptions, whereas the creations of the architect, the artist, and the sculptor may stand unchanged indefinitely.

The great value of the work in the Landscape Regional Town Planning is the conservation and creation of landscape values in a far-reaching way,

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such as is represented in forests, orchards, cultivated and open land fields, bodies of water, and along roadsides, and especially in public and semi-public holdings and in estates and small home grounds, and about business and industrial buildings, that will add immensely to the beauty of the scenic values as seen from all forms of air, land, and water vehicles, and from the back of a horse, or on a bicycle, or on foot.

Private Estates

Cyrus H. McCormick

A client and friend for practically all the years of my professional activity from 1894 until his death in 1936, was Cyrus H. McCormick of Chicago. A man with more far-reaching human sympathies and appreciations and such courageous faithfulness and good nature, it would be hard to find. His persistent adherence to the highest ideals in all his life work was an inspiration to me for over a quarter century—and is now.

His Walden estate at Lake Forest, Illinois was the center of his professional interest. An evidence of the inspirational and recreational values of this place to him occurred in 1922 when he returned with his son, Gordon, from an archaeological trip to North Africa and Asia Minor. He wired me to meet him on the train at Albany, New York. He described with much enthusiasm his archaeological and landscape observations in Africa. At his Chicago office there was only a brief stop—and then to Walden. As we were examining the spring beauty there, he suddenly turned to me with an expression of deep content and said, "Oh! Mr. Manning, this is my paradise!"

My first visit there was with John C. Olmsted in the fall of 1894. A general plan was prepared by September, 1896, with Jarvis Hunt as the architect; and the house was staked out in a thicket of sprouts and small trees in July, 1895. The first vistas therefrom were made in May 1895. In 1896, at Mr. McCormick's request and Mr. Olmsted's consent, the work came to my office. From the beginning, the Walden development was the conception of Mr. McCormick and his wife, Harriet Hammond McCormick who died in January 1921. They were "opposed to anything pretentious or spectacular," and they did appreciate distinctive landscape values and sentiments, as indicated by the selection and development of their Walden home.

During the seasons that they had been in Lake Forest, before establishing Walden, they had examined the lake shores to find an ideal location.

They acquired the 103 acres for Walden in ten purchases from 1893 to 1913, to include the deep ravine and its three forks, with about four upland units. Here was some open land, but mostly notable varied forests with many notably fine old trees. Mr. R. O. Walker, when he was manager of Walden, located a White Oak 410 years old, Red Oaks with an average age of 210 years, and a Sugar Maple 300 years old. Canoe Birch was also dominant, and the much varied shrub and herb undergrowth was especially interesting. The only objectionable feature was a sixty-foot high raw caving bluff that is now covered with trees and shrubs, and a very narrow beach that has been broadened in places up to 150 feet by jetties built in 1904–5 and by Willows from the grounds of a friend of Thoreau's at Concord, Mass., whose Walden was adopted as the name of this estate. There was a stepstone walk of stones from Thoreau's Walden and other localities.

Mrs. McCormick's far-reaching conception of the Landscape Designer's art and its historic background was indicated by her preparation of "Landscape Art, Past and Present" with a preface by her husband. Charles Scribner and Sons published 1500 copies in 1923, with 31 pages and 58 plates that included several Walden pictures by Mr. High—a notable landscape photographer of Chicago. This important book grew out of her February, 1899, address to the Chicago Friday Club, that she amplified from presentation at the American Park and Outdoor Art Association, June, 1900, Chicago meeting. It was published as one of this Association's pamphlets. Mr. McCormick also had prepared and published a 1915 North Shore edition of the Billerica (Massachusetts) Magazine, of which Stephen F. Hamblin was the editor and I the director, with articles from eleven notable landscape horticultural and art authorities. I also prepared, with Mr. McCormick's aid

a typed History of Walden, of which only a few copies were made.

The house was built in 1898, with additions in 1912. It was located, as already stated, in July 1895. It was placed well back from the lake bluff and 74 feet above the lake shore because Mr. McCormick said, "I prefer to live where I can see the broad waters and the sky with their constantly changing beauty without seeing and hearing the constant rippling and breaking of waters on the shore." "We can also open vistas and views from here more effectively." The roads and bridges from the westward were constructed first, and the bridge over the main ravine with the road and entrance to the northward at a later period. The rather unusual radial lines of the bridge braces was one of Mr. McCormick's conceptions. Mr. McCormick also indicated the location of the ravine roads and approved the use of big stumps to be held in place by hidden cement and covered with vegetation to stop the ravine bank erosion, instead of artificial stone walls.

Mr. McCormick's knowledge that Thoreau and his friend Monot Pratt had introduced over fifty new plants into the Concord woods to enrich the flora, led him to accept a like introduction of many new trees, shrubs, and herbs on the Walden ravines and shore bluffs and bottom lands, in upland woods and about the edges of lawns and fields. His greatest pleasure, however, was in the development of trees as fine individuals and in groups to frame in lawn views, and especially views to the lake. Much attention was given to the cutting of dull-colored autumn foliage trees to increase the brilliancy of the autumn coloring. There were many fine large trees moved in, partly from Elm Farm, west of Lake Forest, that he bought largely by reason of its fine trees. Here a small tree nursery was established, and native shrubs were collected for Walden. Live stock was also raised here for a time, but the farm was later disposed of.

Practically all forest beauty development, and especially the tree cutting, was directed by Mr. McCormick, who was nearly always present at my visits and did much of such work between visits. In his front hall closet were hatchets, axes, saws, stakes, colored, tape, tacks, and labels to be used in marking trees and trails. He was a good axeman, cut many trees, liked the exercise, and was thrilled with the results attained. There must have been some thousands of big and little trees out on the 100 Walden acres since the house was built. Many trees were cut along bluff top, bluff face, and other woodland paths that were located with Mr. McCormick's aid and approval, and often with his own hands. Some paths were more dominantly important than entrance roads, for he could be alone thereon to enjoy the beauty of the place.

One of the longest estate views was to the northwest, over the ravine for about 2000 feet to a most interesting big tree skyline. This involved the use of field glasses and special signaling to be sure that the right trees or branches were cut, to give the best foliage frames and skylines. An important tree was never cut without being carefully considered from many points of view, and at all seasons—including, of course, the winter with its snows. The advice of his family, friends, estate manager, and myself were considered. Some big trees were under construction for about a quarter-century before they were finally cut to give finer trees room or to open up broader lake or other views. One of the most helpful and wisest aids in making such decisions was Miss Alice Hoyt before and after she was married to Mr. McCormick in 1926. She had a broad and far-reaching appreciation of Walden landscape values, especially on and near the dominantly important lake bluff where much important thinning and planting was done under her personal direction.

Mr. McCormick was also much interested in his White Deer Lake summer camp in the wild woods of the Michigan Upper Peninsula—a few miles from Champion. Here Spruce, Firs, Canoe Birch, ledges, big boulders, streams, and lakes for canoeing and fishing offered a complete change of scene. I made a regional plan study here. Mr. McCormick had me select a big boulder here and arrange for its removal to the family lots in Graceland Cemetery, Chicago, where it is the dominant memorial monument.

Another of Mr. McCormick's far-reaching community welfare interests is also represented by McCormick Hall, at Princeton University. He had me make a report and study in 1925 for the University grounds. He also built, as a memorial to Mrs. Harriet Hammond McCormick, the 12-story Young Woman's Christian Association Residence in Chicago. There was a fund, as a memorial to Elizabeth McCormick for special attention to school children who were not well.

Such work as Mr. McCormick has done to aid others while here on this earth in unselfish and constructive ways is coming to be more and more the religion of this period for many people.

From 1897 to 1900, Mrs. Nettie Fowler McCormick had me locate buildings and plan with her the travel ways and planting ground of the Rock Riven estate of Montecito, California, with is open and wooded rolling land, a great river boulder under old Oaks, fine views over Orange groves and the tree embowered town to islands in the sea. A dominant planning factor was the water supply. The miner's inch was the water measure, and an acre of lawn or garden required two inches. The available six inches left little after house and building needs were supplied, so a narrow front lawn was made with the outer edge dipped to take advantage of the above view beyond. A valley cactus and a ground cover garden required little water.

Mrs. McCormick, who was Cyrus Hall McCormick's mother, was one of the most capable clients I ever had in her ability to analyze all factors of a project from every point of view, summarize the reasons for and against any propositions in her decisions. It was almost uncanny to see how she could detect any controlling factor which had not been considered fully. She also had a keen understanding of maintenance problems. Her son, Stanley, who now occupies that home, was helpful at this period. In 1914–15, I aided her at her home grounds in Lake Forest.

Aid was also given in 1921 to Cyrus McCormick, Jr. in the planning of his Lake Forest home grounds, in which he showed marked originality in the home color schemes and in the garden.

Mrs. Emmons Blaine, a sister of Cyrus H. McCormick, also had me aid her in planting her Chicago home grounds. Like her mother, she could analyze the many factors which enter into such a project and make decisions which led to giving her property special distinction.

From 1908 to 1924, I aided in developing estates that were occupied by Miss Mary Virginia McCormick near Pasadena, California, where conditions were somewhat similar to those at Montecito, but with mountain instead of sea views. Advice was also given for her home at Toronto, Canada. Here was a bluff top home in a fine residential section, with fine views, bank and border plantations that were improved and made more accessible from the house and the walks and drives. Another of her homes was Kildare, at Huntsville, Alabama, with a typical southern mansion, fields, and fine groves of trees, where thinking and some replanting to control views was undertaken. Here mosquitoes were pests, and intensive search failed to locate the breeding place until I saw an insect cloud high up in a big tree. Here a big cavity filled with water was found. An auger hole in the trunk

drained off this water and stopped mosquito pests.

Another of her homes was at Cohasset, Massachusetts, with most attractive bay outlooks and typical seashore vegetation that was quite different from the other estates. The Pasadena, California, estate has now come to be the permanent home of Miss Mary Virginia McCormick. I was much impressed with her love of music and her appreciation of beauty in landscape. When I was riding with her, she would often point out especially beautiful and well composed views. In both these traits, she resembled her brother, Mr. Cyrus II. McCormick, whose love of nature was equaled only by his love of music and the pleasure he gained from musical composition. Often, when I was at Walden, I would come upon him playing the piano and noting down musical compositions which had come into his mind as he was traveling.

Mr. McCormick also called upon me to aid in locating and planning the surroundings of the low cost Caruth Cottages on Lake Forest. His interest the extension of Lake Forest University in 1906–7, led to my being asked at that time to cooperate with President John S. Nollen, and Architects B. W. Morris, and Ludlow and Peabody in locating new buildings and roads. A ravine was a dominant planning factor, and buildings were placed to have access from a new ravine bridge to eliminate roads from parts of the campus. A faculty and fraternity house group was located and planting recommendations made. A plan was also made to show the relation of the University to the nearby Academy where some rearrangement of the grounds, some planting, and the relocation of Poplar Avenue was recommended.

Mr. Harold F. McCormick had me consult with Charles F. Platt his architect in locating his mansion and planning and planting of the grounds of his shore estate, south of Walden. In this property were attractive woodland areas which were left in their natural condition after entrance roads and trails were established.

Private Estates

William G. Mather

I first met William G. Mather of Cleveland, Ohio, and Ishpeming, Michigan, before 1899, through my Olmsted connections. He has been a friend and client all the years of my independent professional practice.

I aided in selecting his Gwinn home site at Bratenahl, east of Cleveland, from among three lake shore properties. The selected site was well screened by planting from adjacent homes. There was a fine group of tall Elms, Oaks, and Maples at a bluff top house site, with a semicircular sand shore bay below it, and opportunities to acquire land to completely protect the house site outlook across the Lake Shore Boulevard and also to control a wooded stream valley unit with steep banks and a much varied tree and undergrowth.

Charles N. Platt designed the home, the Italian garden with its arbor and fountain, the Formal garden with its Dolphin fountain, arbor, and statuary, the entrance road terminals, shore walk gazebo, terminals and the utility structures on both sides of the Boulevard. We worked together on this, as I planned the planting on these gardens, the home and service grounds, and the great wild garden in the valley. The Formal garden is surrounded by Rhododendrons and other broad leaf evergreens, with Ivy and Hellebore ground cover, and other low flowering plants. The big valley wild garden and the bluff top woods to the eastward were filled with a great variety of native and exotic plants, with great banks of Rhododendrons and such other broad leaf evergreens as Catesbys Andromeda that was dominant along the stream bank. Here such garden plants were naturalized as the Jonquils, Squills, Japanese Primrose, Tawny Day Lily, Plantain Lilies, Goutweed, Arrow Bamboo, Iris, and Yuccas. I once listed 500 different kinds of flowering plants and ferns on the whole property, including the greenhouse.

Mr. Mather's love and keen appreciation of natural beauty was a joy, an inspiration, and education to me. It was not indicated by many words, as these were not necessary, for it was so obvious that one could not be with him without feeling its force. How well I remember our walks through the woods and wild gardens of his home. There would be the rippling of the stream, the whispering of the winds through the tree tops, the chirping of the crickets, the whirring wings of a startled bird, the silhouette of bare or of leafy tree tops against the sky, the constantly changing colors, shadows, the far-reaching lake and sky colors and cloud patterns, the ripple and varying wave action on the sandy beach and rock-rimmed shore of Lake Erie. Mrs. Mather has been an ideal companion for Mr. Mather, with like appreciation and far-reaching conception of the importance of leading other people of Cleveland, especially the young people, to secure beauty and other garden returns from their city or suburban home grounds, with the cooperation of public school authorities.

There are few men in America who have Mr. Mather's vision and capacity for achieving such fine results in the iron mining industry and in providing for its people in such far-sighted, sympathetic, and wise ways. His Cleveland Cliffs Iron Company held about 600,000 acres of land in the Michigan Upper Peninsula and much land in the Minnesota iron mining region. Their company problems were the location of the bodies of iron ore, the opening and development of mines, the sale, utilization, and distribution of different types of ore by road, rally, and by boat; the protection, development, harvesting, and utilization of the products from the great forest areas; the impounding of water in reservoirs or large lakes for the production of power, flood protection and water supply; the construction and development of power plants, administrative centers, public utilities, with protection, education, recreation, hotels, homes, and gardens for all

employees. This meant the building of a new town and additions and modifications of the older ones.

From 1899 to 1932, my work for the Cleveland Cliffs Iron Company had to do with many of these activities, with Mr. Mather and his associates.

I first gave advice in Ishpeming, Michigan, as to Mr. Mather's Cliff Cottage, a broad, low structure with nearly continuous windows and porches on three sides, much varied views to the town with its public buildings, wine shafts, homes, and to valley and hill views in these directions. In the valleys were round-topped knolls with perpendicular cliffs and steep slopes at the bare, and a series of short ridges—the formation of which was extremely ancient geologically. To open up these views to the best advantage for Cliff Cottage meant the cutting of some trees and the removal of many branches from others. The steep entrance road to Cliff Cottage and several paths passed through a much varied tree, rock gardens, and other growths that were extremely varied and attractive for such a small acreage. There was a long narrow vegetable garden and woodland bank terrace at the back of this property, with a high, mostly wooded ridge summit with vistas cut through trees. Here were roads, trails, a picnic grove, and playground much used by the public. In this public reservation, numerous plants were introduced to determine how they would behave. One plant was the Witch Grass from the east, which was established on a dirt road to hold the soil in place. It served its purpose well, but did not spread much in the shade. The Goutweed that was send from the C. A. Griscom place in Haverford, Pennsylvania, and planted in the Billerica woods died out, but that sent to Ishpeming has taken possession of a large woodland area, driven out most of the native plants, made six to eight inch-mats of dark-green summer foliage with some white flowers. Some people have

found its leaves good for salads. It is too weedy for any garden, but is useful as a ground cover in curb beds between herb roads and walks. This Goutweed is looked upon as a joke on me. There is a big patch in Mr. Mather's woods at his Gwinn home near Cleveland. I refer to this as showing how new plants may become pests in one place and not be harmful in others. It is found occasionally about Boston but not in big, fast-spreading patches.

Below Cliff Cottage was an old mine pit, about 40 feet deep with tunnels to old mines. There are many similar ones in this region. Many of such underground ways should be so opened and developed as to give recreational and educational value, with an entrance fee that may cover maintenance costs if many more people come to this Northern Peninsula for its recreational values. On the top of this pit and across the road on Mr. McClure's home ground were Scotch Pines, planted about 30 years ago, and interesting shrub, lawn, and wine plantations. Then comes the automatically opened gates to the General Manager's large grounds on which there are two homes. Mr. M. M. Duncan, who was the Manager for many years, and his wife were much interested in the development of a flower and kitchen garden, with a walk to an arbor. The next manager was S. R. Elliot, who with Mrs. Elliott continued the interest. In 1920, he had modifications made in shrub plantations at the side of the home.

Plans were made for the grounds of Lucien Eaton in 1913–14, also for Mr. Youngbluth, and for many small home grounds of the company officers and miners to whom advice was given and knowledge gained from resourceful garden-lover neighbors. The appreciation of floral beauty was made manifest by more people placing flowers on their piazzas where the passing people could enjoy them, then I have seen elsewhere.

Advice was given with reference to the arrangement and planting of cemeteries, school buildings, fire stations, Y.M.C.A. grounds, a hospital, churches, and the grounds about the mine buildings. Special attention was given to the C. C. I. Co. office grounds on the shore of Lake Bancroft, over

which was a fine view to a high shore cliff. Here were game courts, lawns, border plantations, and a vegetable garden, with a nearby slope planted about 1915 with dwarf and tall cone-bearing evergreens and the Japanese Barberry. All this was in Ishpeming, where one of the most important recent projects was the Mather Inn that was build from plans made by James Ritchie a Boston, Mass., architect. This was near the station and business center of the town.

There are a dozen or more towns in which the Cleveland Cliffs Iron Company had mining, residential, educational, and recreational interests where such plans as are referred to hereafter were made and directed during 1899 to about 1930 by representatives of my office, and aids of the company. In the planting about the little and big homes in these towns a kitchen garden was almost always included. All the needs of a family of four, except sweet corn, potatoes, and asparagus, could be secured from a 50 x 50 foot area with an average of about two hours of work per day. The company had large plowed and fertilized fields where employees could grow corn and potatoes.

At Marquette, Michigan, were the C. C. I. Co.'s principal railroad yards, ore docks, a large furnace, and chemical plant, with its office, and dams with reservoirs and power plants not far away, for which plans were made and executed. There was a summer home colony to the westward, near the shore, where similar plans were made. One of the power plants was near the Marquette State Prison, where most attractive grounds had been developed and maintained from a prisoner's plans. South of Marquette, on the face of the new long, high C. C. I. Col. Dead River Dam with a two mile lake back of it, planting was done to stop water and wind erosion. Witch Grass, Virginia Creeper, a False Buckwheat trailer, and low shrubs were used, and soon made an attractive ground cover. From the highway, the road to the dam passed through Oaks, Maples, Mountain Ash and other trees and shrubs, and notably fine groups of the spirey Spruces and Firs that were opened up to view.

In 1904, I made plans for the County Court House grounds and planting, and for the Marquette Cemetery with special attention given to the Kaufman Mausoleum and the Cemetery lake shores. Advice was also given with reference to a lake shore reservation in which a group of big old White Pines were saved. Plans were also made, or advice given, for the home grounds of George Shires III on a cliff overlooking the town, and for Dr. E. J. Hudson, and James E. Joplin.

The Pioneer Furnace of the C. C. I. Co., the Railroad Terminal and shop grounds, and the land end of the big pier, where ore was slid from big bins into the big boats of the company were dominant features in the Marquette City Plan, with Presque Isle—the city park—nearby. There were studies made for the wetlands at the boundary lines of the C. C. I. Co. and the Presque Isle Park to accommodate small watercraft. There was much work done in planting the steep, high banks of the railroad that went to the top of the dock, also about the railroad roundhouse, the office and shop buildings, and a fenced in flower garden that received much attention from the people in the C. C. I. Co. offices. There was a lawn with a shrub border between the entrance road and the swampy areas. Here was one of the most attractive railroad yards of the country that came about chiefly through the cooperation of H. R. Harris and his aids of the Lake Superior and Ishpeming Railroad, who also aided in improving the station grounds at Gwinn and elsewhere. His first comment to me with reference to my railroad beauty proposals was "We are running a railroad—not flower gardens." He soon came to feel that the attractive outlooks were an important factor in railroading procedure. This came in part from his attractive Marquette home grounds that Mrs. Harris was largely responsible for with a little of my aid.

The Pioneer Furnace grounds near Marquette were also improved. Here conditions were not favorable owing to surfacings of chemical waste and coal tar, but plants would grow under such conditions. The Ash-leaved Spires (Sorbus sorbifolia) that is often found at ancient home sites succeeded

well. Here were attractive office grounds with shrub and herb plantations. This Pioneer Furnace is now operated as a Cliff-Dow Chemical Company project, where many wood derivatives are manufactured instead of the carbon iron that was the early day product. The C. C. I. Co. retains an interest and will supply for many years large quantities of chemical wood.

The Company had large holdings in Alger, Marquette, Schoolcraft, Luce, and Chippewan countries. J. M. Bush, the C. C. I. Co. Forest Manager, and Mr. Brotherton motored my through the holdings east and south of Munising, and I was greatly impressed with the much varied scenic and wild life values and the great number of old travel ways that could be taken advantage of for resort and recreational uses. Points of special scenic interest were the Pictured Rocks, Gane Island, Munising with its great harbor, and the marvelous sand dunes at Grand Marias.

At Munising, I planned a town extension and low cost houses therefore. The school, hospital, Beach Inn, and other public building grounds were planted, also the hotel and summer camp colony grounds and forest planting on Grand Island. The Rugosa Rose and its white form that was planted at the Munising Beach Inn about 1910 is spreading along the lake shores even to Grand Island, as it is along the New England seashore. Munising is mostly in an amphitheater, between the bay and a high semicircular ridge that is mostly covered with woods. Mr. Mather saw to it that this ridge that gave the town such distinction was controlled by the C. C. I. Co. to preserve its beauty. Munising was the home of "Hiawatha" of Longfellow's poem. Its bay and channels have deep water. It is near the trunk line railway and highway that passes from New England across the Soo water way, with its dominantly important lake traffic, then westward through and near more important scenic values than any other natural thoroughfare. There is also an airport at Wetmore, a few miles away. Here is a region

of rolling, wooded lands, a thick network of streams, and many lakes and a big scenic swamp, not far away, that is so varied and beautiful and so full of fin, fur, and feathered life as to make it an ideal location for a great recreational resort.

At AuTrain, west of Munising, was another dam to hold a big lake in a valley that headed into another, with an outlet to Lake Michigan. These valleys had been considered for a fifty-mile canal between the two lakes to save four hundred miles of lake travel through the Soo Canal and locks.

In my C. C. I. Co. work, I was with W. H. Moulton much of the time. He was in charge of welfare and like activities, and had a high appreciation of the needs of the people and of planning and beauty values, that would appeal to most people. He also had a fine sense of humor. Even the wild life seemed to enjoy his company. On our outings, we saw Beaver at work, and they would stop and look at him with what seemed to be a smile. We saw Deer, Squirrels, Porcupines, Quail; and once on our way to Munising, a big black bear with a Cub behind her walked across the road in front of us and looked our way. There were two ladies in a car coming toward us, and they did look frightened. Later, without realizing that Mr. Moulton was a part of the show, they told him a terrible tale of the great danger they were in, and he did enjoy it. Julian Payen, who directed much of the planting, and who was an expert plantsman and garden beauty producer, was also most helpful.

It may interest you to know that I a "tenderfoot" had a guide that had me cross the Rover at Munising by hopping on logs, and that I hopped after him and did not get the ducking that I believe he expected me to have. One of the party did roll into the water near shore, up to his waist.

Let me say that when the Upper Peninsula comes to be one of the most important recreational centers in America—as it should be—that log-rolling and hopping contests will be part of the summer fun, as skiing and coasting will be part of the winter fun. The snow comes early, stays late, and is so

deep and continuous throughout the winter season that there is always good skiing, snowshoeing, and tobogganing. This snow usually keeps all frost out of the ground, so that Crocuses and Narcissus push their heads through the edge of the snow. Winter passes into summer, with almost no spring.

The town of Gwinn is near Munising. This town was named for the mother of William G. Mather, the C. C. I. Co., President, and was a new town on wild land at a new mine location that we were asked to make surveys and plans for. The site was in the valley of the Escanabe River, near the upland towns of Princeton, where the Austin and Princeton Mines of the above company were becoming exhausted. My principal assistant was Arthur K. Harrison, who is now a Massachusetts State College Landscape Professor. We had deer, beaver, and a bear for neighbors. The plan provided for the usual business and residential sections, schools, a church, cemetery, public reservations, station and home grounds.

The town site was between a country road from Princeton, the Munising branch of the Lake Superior and Ishpeming Railroad of the C. C. I. Co.., and the river. The new mine was across the railroad from the town site. The surveys were made in the fall and winter of 1906, and we had to use snowshoes and provide like support for transits. There were also surveys made of much of Princeton, in 1907, where studies were made for a new general office, there, with recommendations for improvements about public buildings, drainage, et cetera. There was an attractive office here for which planting plans were made and executed.

While the town of Gwinn was in the process of construction, we lived in a lumber camp. The most polite man at the table was the one with the longest arm, who could reach for what he wanted without asking, as it was the rule of the camp that there should be no talking at the table. In this way, arguments were eliminated. Word got around that I had found bedbugs in my bed. The foreman said with a grin “Mr. Manning must have had

them on him as, of course, we do not provide such pets for our lumber camps."

At Gwinn, the railroad station was first located and planned with the aid of James H. Ritchie, Boston Architect. The attractively developed station grounds came later. The wide central town thoroughfare, with turf and tree strip in the center, passed from the station over the river, directly to the County Pond from Princeton to a point near a cemetery thereon.

By March, 1909, there was a "Show Plan" with "A Road System that Fits the Surface," et cetera. This went to Company officials, including G. R. Jackson, who was the Company Superintendent, and for whom a home was built at Gwinn. There were detail plans prepared and executed for roads, water, and sewer pipes, cemeteries, schools, town hall, and playgrounds.

There were detail plans made for some houses, with special attention given to color values. A church and rectory were located; and in 1909, land was deeded by the C. C. I. Co. to the Roman Catholic Church and to the adjoining town of Forsythe for cemeteries.

A Gwinn Club building was designed for the Gwinn Association by Abram <ABRAHAM?> Garfield, Cleveland, Ohio, architect, who in 1910 cooperated with me in the planting plan. Plans were also made for the High School and for its planting. In 1923, plans were also made for the location of a County Park, with bath house, parking and camping areas in Forsythe, for which the C. C. I. Co. had provided the land.

In 1919, a visit was made to the Minnesota, Kinney, and Hibbing towns. Here the Mesaba Iron Range was a tremendously impressive mine center, with immense steam shovel excavations of top soil from over great bodies of ore; and then the ore was steam-shoveled and railroaded out. Here recommendations were made, without later supervision, for improvements about the C. C. I. mine office, the homes of Mrs. Moore, Max Barber, Mr. Donovan, and Mr. Stevens.

The village of North Lake, where the Morris-Lloyd Mines were, was another town planning project where studies and plans were made for its en-

largement in several directions to gain better highways from the village to the mines, and to make the village and mine holdings more attractive. In the village was a modern school at the end of a wide parkway in which there was planted, in a wide central planting space, many thousand of such plants as Spires and Japanese Barberry, so close together that practically no weeding was needed, and from which plants could be taken for other places as they grow together. This was C. C. I. Co.'s type of nursery.

Crossing this parkway was the main street of the region, from which the mine road passed. The superintendent's house formed a most attractive terminus to the street, and Mr. Stackel was especially skillful in leading to the attractive development and maintenance of his home grounds, the mine, office, shaft surroundings, and the town buildings.

About the public school, at the end of a parkway, were playgrounds and nature trails that the students had made through the nearby shrub and tree growths. About the mine offices, power houses, tracks, trestles, and roads much interesting planting was made for special conditions; such as steep banks, long slopes, and dense shade. There was a fine open view from the office over a wide stream valley filled with Spruces and Firs. Special entrance gates, retaining walls, recreations grounds with horseshoe pitching were designed and established.

At Negaunee, Michigan, was the forest office of the C. C. I. Co. with Mr. John M. Bush in charge of over 500,000 acres of forest holdings in the Upper Peninsula. With the aid of Mr. R. A. Brotheton, who knew these and other forest holdings thoroughly and who drove me over a wide territory, these maps, and data from other sources, I was able to make a land-use study of the whole region, to be referred to elsewhere.

With Mr. Bush, I examined a forest area that was being developed East of Marquette, with the aid of Federal authorities to secure a sustained yield. It was surprising to see how little the removal of the trees that

would bring the best returns affected the appearance of the growth. It was still a fine, tall forest. At a Marquette Conservation Conference, I learned from a Weyerhauser Timber Company representative that their wastes from mills were being made into thin wallboards and 7/8 inch boards. I said to Mr. Bush that this indicated that the time might come when the forests would be ground up instead of being sawed up for lumber. He said, "Mr. Manning, that is not such a wild dream as you may think." There surely is a revolution under way in the utilization of forest products.

At Nagaunee, there were several home grounds for which I gave advice for planning and planting, and some school grounds, as well as the C. C. I. Co. office grounds. A most important project was the removal of a cemetery from over a large underground ore deposit. With the cooperation of Father Pinton we were able to have the new Protestant and Catholic cemeteries side by side. There was much shrub and ground cover material on the old cemetery site that we used elsewhere.

There were mines near this town—the Mass, the Negaunee, and the Holmes—where conditions varied so much as to give special distinction to each mine in arrangement of grounds and planting. At the Mass Mine, buildings were crowded close together, and only small turf areas were predictable. Here was an opportunity to mass planting at the base of the buildings with turf vistas between. An interesting incident here was a poor soil field with much garden wormwood in it. The Negaunee Mine had a fine lawn area with a border plantation of shrubs that screened gravel pits in which the Rugosa Rose was coming up from seed scattered by birds or squirrels. This Rose had also become established on the shores of Lake Superior, at Munising, from plants that were planted about ten years before at the shore hotel. At the Holmes Mine there was a high mound from which fine views were to be secured over the valleys. Here, vine and shrub planting was done about buildings and on steep slopes. There was a study given to the West Dead River Road location, and to the bridge over the river at Forestdale.

Other dominant regional planning factors are the new lakes that have been established for the production of electric power in the place of coal for steam power, in the Marquette and other regions. My first Marquette experience was when I represented the Olmsted office in the 90's in planting the home grounds of J.M. Longyear on a cliff top. Here we used several shrubs for the first time, such as the Dwarf Spireas that killed to the ground, but flowered from the yearly growth. On these grounds was dug up the skeleton of an Indian. Later this gentleman moved to Brookline, Mass., largely because a railroad was built at the base of his bluff.

From the Dam and its power houses, Carp River water was pumped through a big pipe to a conspicuous hilltop tower tank, and new shrubs were added to the growth along this pipe.

In the magazine "The Explosive Engineer" of August 1924, in an article on "Landscaping of the Iron Range," was the statement that the C. C. I. Co. was the first one in the country to carry out such plans as I had made. There were 1889 and 1920 pictures of the general offices of the Negaunee, Holmes, Atkins, Cliff, and Morris-Lloyd Mines.

I have given some conception of the far-reaching activities of the C. C. I. Co. in its activities in the way of town planning, and providing attractive working and home conditions. Herbert S. Hoover, at a visit to this region before he was President of the United States, said, "I had never thought it possible to make the surroundings of mines so attractive."

In 1930, with James H. Ritchie, architect, of Boston, Mass., plans were made for the Mather Inn, at Ishpeming, and an entrance park thereto, close to the railroad station and town center. It was soon completed and has been well patronized.

In 1931, the C. C. I. Co. had me prepare and "Upper Michigan Land Use Study," with 80 typed pages and 28 maps. This company held over 500,000

acres, chiefly in the Marquette Iron Range about Ishpeming, Nagaunee, Marquette, and also Gwinn in Marquette County, then eastward in Alger County, to include Munising and Grand Island. In Schoolcraft and Luce Counties are the Pictured Rocks and the Grand Marias sand dunes, and a large forest region that extended southward for a third of the width of the Peninsula, and eastward in irregular areas to include the Tahquamenon Falls.

This study of 11,000,000 acres of the whole Upper Peninsula was made with the aid of Mr. R. A. Brotherton, and the C. C. I. Co. maps at Negaunee, with such State officials as George R. Hegarth, L. R. Schoonmann, H. P. Lovejoy, Vernon F. Baily at Lansing, where I examined air pictures of much of the region. Mr. Schact of the Upper Range Company, of Painesdale, Michigan, gave access to much data—chiefly from maps of the engineers Holland, Ackerman, and Holland. They included much of the western part of the state, especially about Gogebic Lake. The Calumet and Hecla Company also gave me access to their maps that covered some 200,000 acres.

The typed Report recommended connected reservations along the lake shore between the many public and semi-public holdings to give this part of the State a connected system, and to give C. C. I. Co. holdings added values that recreational uses would give. In the 28 maps, were four covering the twelve-hour running time from all the United States to Marquette, Michigan, by automobile, rail, and airplane; also maps of winter and summer climatic conditions, of existing and abandoned railways, highways and trails; the wire lines, waterways, air-landing fields, drainage basins, and approximate contours. There were geological, soil, natural vegetation, wild life, wild life sanctuaries, and a beaver map. There were land value, wild and cleared land, occupied areas, public and semi-public and reservation areas, and a reservation system and land classification studies. There were eight nationalities in a race dominance map.

This report was not published as the period of depression came on, and my oversight that had been going on for 30 years was discontinued.

In 1915 to about 1930, the Calumet and Hecla Copper Company, of Calumet, Michigan, had me act as their Landscape Designer. The problems were similar to those of the Cleveland Cliffs Iron Company. I worked with Mr. James McNaughton the administrator of the Company, for whom I had a very high regard, by reason of his broad vision, marked executive ability, appreciation of beauty, and realization of the importance of well thought out plans. He was always ready to consider recommendations and take action that would be to the advantage of the company employees and the communities.

Most of the Calumet house lots were surrounded by old and much broken fences, of the days when the cattle ranged at large; and I asked if they could not be removed. There was a doubt as to whether the people would part with them. After an estimate of the heavy cost of repairs and replacements, it was decided to recommend their removal. This proposition was accepted with enthusiasm, and most of the fences were soon down. To protect front yards in Calumet's main street, Japanese Barberry was planted its whole length on both sides, with the fragrant flowered annual Sweet Alyssium between the hedge and the sidewalk instead of grass that required much maintenance. Fortulacca, Drummond Phlox, and other annuals, and such low ground cover perennials as Violets, Bugle, or Periwinkle, could be used in like plans.

In 1930, I made a study for parts of the land holdings and villages of the Copper Range Company at Painesdale, Michigan, with a map showing the relation of their holdings to the principal counties, towns, streams, lakes, and railroads of the region. This Company had me prepare plans for a village at Victoria Neck where they were to establish the Victoria Dam on the Ontanagon River.

Louis Kaufman

An especially interesting project on the Lake Michigan shore, west of Marquette, near Big Bay, was the 12,000-acre estate of Louis C. Kaufman that he called Granot, Loma, and Loma Farm. He had built a unique house on a ledge at the shore, in which Indian natives were used on account of his early day association with Indians. There were fine lake, bluff, wooded, island, and inland views to fields and wooded uplands. In this planning of 1927, I had the cooperation of Dr. E. J. Hudson, and W. W. Blake Arkcoll. There were plans for the rearrangement of roads, roadside planting, a farm building layout, and surveys of existing conditions, and a moss garden that I hope is still maintained. Some enthusiasts will have wonderful experiences in making moss gardens lawns.

Mr. Harry Fraser, my office representative, here, had the following experience with a peculiar storm condition—in some respects similar to my experience in Minnesota referred to elsewhere.

"I was at Mr. Louis Kaufman's place, west of Marquette, in November 1929, and had the following experience:

"There was a normal atmosphere that changed suddenly to extreme heat. This was followed by a sudden shifting of the wind to a northerly direction, bringing with it a temperature so cold that one shivered. Then came a change to very extreme heat followed again by extreme cold, and then heat again and cold. All this occurred in fifteen minutes.

"The animals were shivering and whining, running for shelter, and acting as though they thought the world was coming to an end, and they knew it as much as I did.

"The family became so alarmed that they went down into the basement, with the exception of one young woman who came out to join us and see the storm. We were at work with the horses, and they were unmanageable. I walked to the shore of Lake Superior, and the wind was blowing so strong that I had to lean against it to prevent myself from being blown over.

The air was at first yellowish, then a ghastly green, changing to a reddish-purple. As I looked out to the Lake, a spire of water rose up and went away from us in a northeasterly direction. In a few moments conditions became normal again.

"At the beginning of this period, there was bright sunshine, then the sky became somewhat overcast with occasional thin fleecy clouds, and then became normal at the end of the fifteen-minute period.

"When it was over, the workers were left so weak that they did not feel like working any more that day. They agreed that it was the most grueling experience they had ever been through.

"It is a tradition of Lake Superior—this water spire—and the natives live just longing to see it appear, provided it goes out over the lake. I never saw such choppy water in my life—big waves, close together, that broke to send off spray as though they hit upon rocks, when I knew there were no rocks there. It was as though there was a disturbance under the water was well as above it.

"That an Easterner only there for a short time should witness this marvelous happening, and they—the natives—should miss it provoked them greatly."

A dominant factor in my life work and training in civic improvement, thought, and action was my association with John Howard Whittemore in the towns of Naugatuck, and Middlebury, Connecticut. He was very successful in malleable iron, banking, railroad, and other activities. I was interested to learn that he spent four of his youthful years at General William H. Russell's Collegiate and Commercial Institute, New Haven, Connecticut, where I had my one year of schooling outside of the public school.

Mr. Whittemore was a smooth-faced, well-proportioned man of a little above the average height. He had a most pleasing personality, an ideal family life, and a love for his fellow man and for landscape and other beauty that so few possessed. No other of my clients has given more of his personal thought, action, and resources to the planning and execution of work for the improvement of his home and business town of Naugatuck, and his summer home town of Middlebury, and in a region about ten miles long between and about these towns. He gained the cooperation of many citizens, with but little publicity. From his work, the public has gained much more pleasure, inspiration, and service from scenic and town and highway improvement values. Few men have left a more enduring and servicing monument.

In 1893 he called in as his landscape designer Charles Eliot, of Olmsted, Olmsted and Eliot of Brookline, Massachusetts, in whose office I was then employed. On Mr. Eliot's death, Mr. Whittemore asked me to continue his work, in 1896. His permanent home in Naugatuck was built in 1888, and in 1901 a house was built for his son, Harris, on adjacent land. Mr. A. H. Napier aided Mr. Whittemore for years in his architectural work. These city home grounds were for the most part treated in a naturalistic manner.

In this town he developed a civic center about the old town common, erected a new Grammar and High school, with McKim, Mead and White as architects, and made a new road to give better access from the low-lying

Naugatuck business and industrial centers, to the high up residential lands. The soldiers' monument was relocated, the school grounds at the end of the common improved. There was also planting about the Bank, the Library, and other City buildings. Mr. C. A. Louis supplemented Mr. Whittemore's civic center work by giving the hillside Louis Park above it. Mr. Whittemore also improved the cemeteries, Hillside and the Ancient Burying Grounds.

He, as a Director, had the N. Y., N. H., and H. Railroad change over a mile of track location through the town and build a new station. He placed the tracks and the station along the Naugatuck River banks and had those banks so planted to make a parkway through the town to be seen from station and railroad train.

In 1901 he began to acquire lands along Hop Brook to save a fine growth of evergreen and other trees, and to include the stream bed with its narrow bouldery gorge and waterfall. This provided for broadening the main road to Middlebury and for protecting the ravine side of the road with great boulders. This reservation extended to connect with a public school for which a playground was provided thereon, and also for a valley gold course. There were trails through this reservation to give access to its beauty. He also continued the improvements of the roadsides from Naugatuck through Middlebury village to his Tranquility Farm Summer home properties on Lake Quassapaus, that he had acquired in 1893. Parts of this public road were relocated; and land was acquired to protect attractive outlooks, preserve old and make new forest acres. There was also much new tree and shrub planting.

In Middlebury Center he built a new school and its grounds and aided in establishing, in 1909, the Westover School for Girls that faced the town common and included much meadow and woodland for recreation. The Main Street was changed here; big elms were transplanted and plantations

made about three churches and other buildings.

At Prospect, a small hill town about five miles east of Naugatuck, Mrs. P. B. Tuttle built a library, and Mr. Whittemore graded and planted about it, about the other public buildings here, and improved the village green and roads.

Mr. Whittemore built a cottage at his Tranquillity Farm in 1893 and then his summer home at the top of a slope leading down tot he lake. The nearby home of his son, Harris Whittemore, was completed in 1901. The home of C. H. Upcon was built in 1930. These two homes were on the uplands opposite the entrance side of his house. Here was a high hill with woods in which a big stone fireplace was made and wood roads, trails, and vista opened to important points of interest and views. The lands that he acquired about the lake, opposite the living side of his house, included much of a high, tree-covered hill that is an important factor in the view across the water.

He was especially interested in the developing the beauty of the Tranquillity Farm home grounds and in enriching the much varied native plantations with such new plant material as the rhododendrons and mountain laurels, the flowering dogwoods, and other attractive kinds that included a collection of the trees and shrubs of the region. There were terraces and flower gardens of various types about the house.

Practically all of this work was planned by Mr. Whittemore with the advice of Mr. Eliot in the beginning and of myself for the rest of the years from 1896 to 1930. Mr. H. W. Shepardson, a Landscape Gardener whom I secured from the Massachusetts Agricultural College to act as Mr. Whittemore's superintendent, a notably capable man, was and is now responsible for executing plans and for maintenance.

The dates herein will enable students and observers to see the results of a half-century of planning and good maintenance for much varied developments.

I also made plans for the following places in Naugatuck that it would be of interest to study: the home grounds of Howard B. Tuttles in 1906–7, of Helen W. Adams and Lewis A. Pibble in 1929, and C. W. Briston in 1930.

I have secured data from "The John Howard Whittemore (October 31, 1857–May 28, 1910) Memorial Volume" prepared by Mr. Joseph Anderson and published in 1912. It is a fine tribute to Mr. Whittemore's life work.

Private Estates

From 1896 to 1916, much work was done about the extensive park-like Auldwood grounds, gardens, and greenhouses, at Seabright, New Jersey, the home of J. C. Hoagland, and on a land subdivision for Raymond Hoagland.

Mrs. Hoagland had a floral piece on the table in which the Queen Anne's Lace was dominant. Her gardener came in and said, "Why do you use that common weed when you have so many beautiful flowers in the gardens and greenhouses?"

Her answer was, "I consider it more beautiful than any of the flowers you send me, with its exquisite lace-like foliage and the dainty, floral heads of white that so often have a jewel-like, single, maroon flower in the center."

This appreciation of real beauty in a common weed and the hospitality of the Auldwood mansion has been a fine memory of the Hoagland family in my mind for more than forty years.

George Kunhardt Estate

The development of the Hardtcourt Estate, in North Andover, Massachusetts, on Lake Cochlcowick, and on both sides of Great Pond Road, with its mansion, cottages, groups of service buildings, and lake-side lodge, was an inspiration to me by reason of the keen appreciation of landscape and architectural beauty on the part of the owners, Mr. and Mrs. George E. Kunhardt.

Surveys and plantings were started in 1897–8. The work on buildings and grounds continued up to 1914 in cooperation with Mr. Richard and Stephan Codman, Architects, and Ivan Siostrom, Civil Engineer. Along the entrance road a variety of small growing trees with shrubs and some conifers were planted. Rhododendrons and Mountain laurels were dominant about the guest house and swimming pool, and Forsythia along the service road.

The house was so located, at the top of a slope, as to give a most attractive lake and distant shore view over an open field slope and over trees at the shore, and to woodlands on shore slopes. There was an ancient homestead across the Great Pond Road at the edge of rolling open fields.

During this period, the near-by home of Mr. William Byers was located, built, and grounds planted under my direction on the steep side of Parker Hill, from which a superb hill and valley view was secured. Here the hilltop above the house was planted with White Pine that now forms a forest of trees from six to ten inches in diameter and about fifty feet high—a notable object in the landscape.

Mr. Kunhardt's greatest pleasure was gained in the development of the forest tract along the shores and slopes above the lake. Hers was an attractive and much varied ever green and deciduous growth, to which was added in the unit nearest the home, Rhododendrons and Mountain Laurels. Here we located roads and trails to give access to distinctive

native plantations, and vistas and views and other attractive outlooks. He keenly appreciated the creation of such beauty, and we spent many hours together on this. He was also a great lover of horses, and they with some cattle, were important elements of beauty in his landscape.

Mrs. Kunhardt's special interest was in the garden areas, especially the garden that extended from the swimming pool up to near the boundary line through trees and shrubs in which was a variety of herbaceous flowering plants. Her later interest was in the garden about the old homestead across the road and the lodge that she occupied for some years after Mr. Kunhardt had passed away. She had a very keen appreciation of garden beauty and did much to increase garden beauty.

Hardtcourt is now owned by the Society of Jesus of New England, for a Laymen's Retreat House.

The beauty of this estate will stand as a memorial to the creators.

Mrs. Byers' property is now the Great Pond Sanitarium, and will stand as a memorial to her. On these two estates are the opportunities to study the effects that have been gained in the development of landscape beauty during a period of 40 years.

Resorts

Pinehurst
from Olmsted

In June 1895, Mr. F. L. Olmsted sent me to Pinehurst, North Caroline, with Mr. James W. Tufts, of Medford, Massachusetts, who had acquired 1000 acres there for $1. per acre. A local magnate said he was cheated, that he should have paid only 75 cents per acre. The plans for the village were prepared in the Olmsted office. When I established my office, I was made the Pinehurst Landscape Designer with Mr. Olmsted's approval.

Mr. Tufts' first thought was to establish a special colony for sick people, but he soon decided to provide for all who wanted to spend a winter in these sandhills, or stop for a time on the way to and from the resorts further South. The land that he bought was a typical sandhill region, broadly rolling, with summits, long ridges, and valleys in which were springs, streams, and narrow irregular wetlands and most attractive growths of small brilliant winter fruits and much evergreen foliage. Important sand roads were on the ridges with fine outlooks. It was a long-leaf Pine region from which most of the trees had been cut. There were many stumps and decayed logs in thickets of young Oak growth. On the more open uplands were grassy patches, big areas of summer flowers, in which blue Lupins were notably attractive.

Mr. Tufts and I gained a good knowledge of the lay of the land with its planning conditions and requirements; and on my return to the office, with Mr. John C. Olmsted, a village layout was made with its large, oval common, a service building area, at the head of the valley, with curving roads, to gain good grades and views, and a straight road to the Carolina Hotel site. The valleys were mostly reserved to hold the attractive plant, bird, and other wild life thereon, and for spring-fed reservoirs that provided town water to supplement that drawn from deep driven wells. In another valley was the sewage disposal plant. Near the village center was a pine grove filled with deer.

The Holly Inn, a community church, business center, and first cottages were constructed near the head of the common, at the bottom of which another church was erected at a later period. Then came the building of homes and other hotels, the dominant one being the hilltop Carolina Hotel with a light at its summit that was a beacon for all the region and towards which several of the regional roads were directed.

The golf courses that have given Pinehurst special distinction were designed by Donald Ross, who fully recognizes the importance of floral and scenic values in his planning. I aided in the location of some of these courses, including the last one at the new Pine Needles Inn, located at some distance from the village.

Special distinction was also given to Pinehurst by its 150 to 200 miles of bridle paths, with attractive outlooks, natural wild gardens, opportunities for picnic places, and overnight accommodations. On several thousand readily accessible acres, the hunting privilege was gained for guests. Airplanes first landed on the farm field close to the town. Now there is a large airport about two miles away.

In an early day nursery, many exotic plants were brought in to enrich the native flora—the Himilayan Pine, Deodar and Mt. Atlas Cedars, Cedar of Lebanon, Chinese Juniper, Japanese Yew, and Larch are the cone-bearers that are growing well. For shrubs and ground cover plants there are Winter Jasmine, numerous foreign Azaleas, Magnolias, Bamboos, and Hathe's Camelia, Japanese Quince and Honeysuckle, Forsythia, Wisteria, Privets, Nandina, Tabira, Lilacs, Scotch Broom—nearly all of which have grown very well and some are becoming naturalized. These exotics supplement such notable attractive native plants as the Holly, Yaupon, Inkberry, Mountain Laurel, Sweetbay, Dahom, Fothergilla, and Winterberry. The Evergreen Live and Water Oaks and Magnolia that are natives further South were planted, and have grown rapidly. Winter Jessamine is notably valuable for late winter yellow flowers. Scotch

Broom is spreading fast. Tall Pines are festooned with Wisteria. There are several evergreen ground covers. The Mocartney and Cherokee Roses are naturalized. The native Flowering Dogwood, the Azaleas, Magnolias, and Redbuds have notably attractive spring flowers.

Few places in America can excel Pinehurst in much varied and attractive floral and foliage values for all the year, but especially in winter and spring. A few of the best kinds of are made dominant enough to avoid a mixed up foliage and floral effect. The intent now is to give each street special floral distinction by making one or a few plants dominant. It is also the intent to make some forest plantations of such exotics as the Himalayan Pine, that is growing more rapidly than any native tree in Pinehurst, with a promise of making interior finish lumber of the White Pine type. Other exotic conifers may also go with such forest plantations.

In locating the best lands for the outlying hunting regions, Mr. Leonard Tufts and I examined several thousand acres in an Oldsmobile the he had trained to go everywhere—through fields, open woods, and shallow streams. Never shall I forget the far-reaching point of view of this son of James W. Tufts, who was so largely responsible for the development, not only of Pinehurst, but of all the region about it. He secured state legislation that provided for public reservations. Here is such a paradise for a distinctive and greatly varied wild life conditions, and so full of interest in the home, village, and town conditions that are so different from most of the other regions of our United States. Richard S. Tufts, the son of Leonard, is now President of Pinehurst Incorporated.

When it is realized that land values have been increased from $1. to many hundred dollars per acre through the activities of three generations of one family, the importance of pioneers in a new region with far-reaching vision is made evident.

On May 6, 1911, I started on a trip with Mr. Leonard Tufts, Dr. W. Marr, and "Uncle Charley" from Pinehurst, N. C., to Meredith, N. H., by automobile. The young Oak leaves were a vivid yellow-green and not as gray and red as to the northward. We passed brilliant patches of the blue-flowered Toad Flax and scarlet flowers of the Sheep Sorrel that in the North is a dull red. Other flowers were the Rose Acacia, Blackberry, Lupin, Dwarf Phlox, with Azaleas at Little River and Stuartia and White Fringe near Carthage. The next day, the Atamasco Lily and Purple Oxalis flowers were of special interest.

Our camp was near a typical pitch-roof cottage with an ell and big chimney, and walls of vertical battened joint boards. At this period people and horses were often scared by the automobile. One of the pleasures of the trip was Mr. Tufts' courtesy and consideration that brought smiles and thank yous from the drivers. As we passed one long-eared team ahead, Uncle Charley said "A mule just looks at yer and don't wake up until you is by him, then sometime he wakes up powerful smart."

We crossed the head of the navigable Deep Run, with ruins of docks and mills and groups of Red Cedar that had notably bluish foliage. At Hayward were many gardens, and in an old Raleigh garden were fine plants of Pittosporum, Russian Olive, Tea Olive, Bamboo, and large Bottlebrush, Ginko, and Live Oak trees. At Warrenton were fine old box gardens. From here on, the garden plants of the north were more common. At Thelma we found Fire Pink and Shrubby St. John's Wort in large patches. At Roanoke River were fine Pines and Red Birch on shores. We entered Virginia. At Emporia were fine groups of yellow Jasmine and Silver Cineraria. At our camp near here, we had four colored visitors and a banjo, so we sat with five colored people on one side of the fire and three whites on the other side and had an evening of singing.

Near Tyrus were big fields, and in Stoney Creek valley was a fine

grove of Willow Oak, that ought to be in public reservation. After a hotel night at Richmond, we passed Montpelier, a most attractive spired church town, then came "kinder chucky" roads and an eventful ride well into the night by reason of the wild life that we passed in the air and on the road and two wildly excited kids who ran from a house with almost no clothes to see our automobile. They had a "little bit" of a ride, near midnight. We camped near Louise; then came much Pink Azalea, Pansy Violets, wheat fields, and a fine avenue of Oaks. Here we had "much chucks" in the road.

Near Cobham station, the Charlottesville Mountains loomed up against the sky. At Ashmont was a notable stone church and gardens full of flowers. We then went to Charlottesville, Virginia, through wooded hills and along streams to Monticello, the home of President Jefferson, with a turn in the road at a superb valley view; then through tall woods up hill and by a brick gate lodge, and by Evergreen Honeysuckle and Scotch Broom ground cover, then by Jefferson's granite monument to the house. We then drove through the University of Virginia, Jefferson's masterpiece to which reference is made herein.

At Brownsville, where young Partridge were walking along the roadside, a nice old lady said, "We people never disturb them and they just stay around." We are in a very beautiful mountain and valley country. At Afton is a wonderful valley view at 1500 feet above the sea. At Rock Fish Gap, 2000 feet above the sea, is the foundation of the inn, where on August 1, 1818, the sit and plans of the University of Virginia was approved by a legislative committee and the board of trustees which were Presidents Jefferson, Madison and Munroe. This inn should be restored. Here we camped with Flowering Dogwood in its full glory of bloom in the foreground of the valley view.

We went down hill to a broad fertile valley, then through rolling country to Winchester, Va., then to Mt. Crawford where we saw two small trees of the cut-leaved Elder. To our right had been continuous and to our left

occasional mountains. We passed through a region of new orchards at Staunton and Harrisonburg. We left the region of log and board houses, and entered the region of stone houses and big Pennsylvania barns with slotted window-shaped well openings and distinctive decorative patterns on the walls and often with a basement set back on one side. Between Jackson and Edinburg are about two miles of streamside road then a splendid hilltop panorama. At Tatlowtown, along the stream side, are tree-covered rock cliffs. Hear Fisher Hill is a fine river view. At Strasburg, the high easterly mountain range plunges into a broadening valley of low rolling hills. We camp in a grove with a very rich flora.

On the 14th we passed to Hagerstown, Md., by a cemetery that I had planned, then over mountain ridges with a far away valley view southward and varied local views as we entered the Gettysburg valley view southward and varied local views as we entered the Gettysburg valley and passed to Shepardstown where there is a splendid mountain and valley view to end beyond Harrisburg. The latter city has notable Susquehanna River valley views, the State Capitol, and an interesting park system that I designed.

Myerstown is a typical Pennsylvania Dutch town with houses on narrow lots and close to the sidewalk nearly all along the main street. We passed to Reading, Pennsylvania, and Easton, N.J. and then found the most beautiful scenic way of the trip as we climbed the Schooley Mountain, then into a valley and up to a most beautiful view on a hill south of Ralston, where Mr. Tufts said we must camp. Here we found the northland Yellow Birch, Hepatica, Yellow Violet, and Maples. The next day we passed through Madison, Morristown, Newark, Englewood, and then up the west side of the Hudson River to Nyack where we were ferried to Tarrytown, N.Y., with its fine estates. At Groton there was a fine view of the Hudson. From Peekskill, we passed Lake Mahopac, with its big wooded islands and other smaller lakes, then down hill to Sandy Hook, along a rapid stream, and by high bluffs covered with Hemlock and other trees, and across the Housatonic River to a

river bluff road, between splendid walls of Hemlock foliage—the finest river gorge scenery of all the trip.

Southbury, Ct., was a fine old type New England town with high hills bordering the road as they did below Winchester, Va., but with finer old trees and homes. We passed through Middlebury that had been much improved by Mr. J. H. Whittemore with my aid. At Waterbury we had the second hotel night. On the 17th, we saw the superb valley and Meridan Mt. Views and a most attractive landscape composition on the steep hill road to Southington. Then came level lands about Farmington where we found the finest colonial homes that we had seen. Nowhere did we find such fine tree-lined streets as in East Hartford, East Windsor, and Enfield. The trees were mostly Elms. At Longmeadow was an effective Connecticut River view. Our finest mountain view with a river foreground was from Middle Road, Northampton. Opposite Smith Ferry station was the finest Redbud tree of the trip.

We then passed through a much cultivated crop region with a fine view of Sugar Loaf Mt. at Bernardstown was a high stone arch bridge, with a fine view therefrom, and four-and-a-half miles beyond this was one of the finest landscape compositions of the whole trip, at a sag in the road.

Deerfield has special historic and street tree values. Northfield has beautiful tree arched streets. From the hillside road to Hinsdale, Mass., are splendid valley and mountain panoramas to the west. Keene, N. H., has attractive tree arched streets. Dublin Lake and its shore homes are attractive. We camped at Hillsboro. Beyond Heniker we passed an attractive lake and beyond this a fine Beech grove. Beyond Hopkinton is a fine mountain panorama. Then comes valley and mountain views up to Lake Winnipesauke.

The trip was terminated at Mr. Tufts' summer home in Meredith, from which is a far-reaching series of valley, mountain, lake, forest, and field views that are as varied, fine and beautiful as we have seen on our whole trip.

Another far-sighted pioneer client who recognized the values in new or little developed regions was S. B. Chapin of New York, for whom I made home ground recommendations of plans at Lake Geneva, Wisconsin, about 1900, at Pinehurst, N. C., in 1917–28, Myrtle Beach, S. C., in 1934 and 1937, and Greenwich, Connecticut, 1938.

He acquired much land near Pinehurst, North Carolina, on which he successfully established orchards. In 1934, he had me examine Myrtle Beach, South Carolina, where he had erected a home. In 1937, I covered a much wider territory here, and came to fully appreciate the outstanding advantages that this Myrtle Beach region has for both a winter and summer resort.

Here are long, fine sand ocean beaches, very picturesque arrangements of waterways passing between irregular shaped islands and points, and several types of sand dunes that are covered with more attractive and varied evergreen and deciduous vegetation than I have ever seen on any part of the Atlantic coast from the east point of Maine to the tip of Florida. On these dunes are forms of the evergreen Live and Winter Oaks, Pines, Cedars, Hollies, Yaupon, Adams Needle with its great spikes of flowers, Bayberry, Huckleberry, the fluffy fruited Baccharis, and many other plats. To this picturesque shoreline come winding waterways ,soil, and rock condition from much varied forest and open land growth. Then comes the inland waterway, that passes most of the distance from Boston, Massachusetts, near the Atlantic shore, through Cape Cod Canal, Long Island Sound and through natural and excavated channels to Key West, Florida, and along much of the Gulf Coast to Texas. This water-way cannot be duplicated in all the world for its length, for the variety of vegetation, habitation, and climate conditions along the way.

Myrtle Beach is centrally located not only on this Inland Waterway, but also on the great trunkline automobile thoroughfare that passes near the Atlantic Coast from Eastport, Maine, and across several rivers and Chesapeake Bay to Key West, Florida. There is also an airport and railway access to Myrtle Beach. There are good hotels and stores, and many homes that are rapidly increasing.

City and Towns
Parks and Parkways

Town Planning
and
Small Home Grounds

In 1895, I became a Billerica, Mass., resident to preserve and repair the Manning Manse, the ancestral home built by Samuel Manning in 1696, and turn it over to the Manning Association as the Manning Manse. Here I built a cottage, outbuildings, and a large office building where my professional work was done, with as many as thirty employees.

I have done what I could to make Billerica an ideal town to live in. In 1903, I was Tree Warden, and later Chairman of the Town Forest Committee. I was also active in the Village Improvement Society that lasted from 1905 to 1919. During this period Mrs. Charles H. Kolrausch gave a playground in North Billerica and a granite drinking fountain in the center as memorials to her husband. The work done is referred to under Community Days.

In 1912, "Billerica," a local magazine was started, with Lymon V. Rutledge and A. Warren Stearns as editors. Four volumes were issued, the third one being The North Shore of Illinois edition with Stephen F. Hamblin as Editor, was supported by Cyrus H. McCormick of Lake Forest, Illinois. In these issues is much of historic interest and many illustrations concerning Billerica and much of interest in Landscape Design.

My office made surveys and a zoning plan of the town, that have not yet been accepted. Surveys were also made of much of Billerica, Carlisle, and Chelmsford as a part of my recreation, mostly on foot or on a bicycle; also a survey of the Concord River shores.

In the early 1900 period, about 300 acres was given to by citizens to the town for public reservations. If I could have taken the time, I could have secured about 1,000 acres of gift land for a connected reservation system. The town has now made a State Forest to include Gilson Hill lands and oval areas that were given the town. Inscriptions have been cut into ledges or boulders to record the names of the donors, or of others for which they would like to have the gift stand as memorial.

My experience in this and other towns indicates that if leaders can be found to follow up town planning study and the acquirement of land, that the town may be greatly improved as a residential or as a manufacturing town in a few years. It is difficult to find leaders who can hold persistently to one objective for a long time. It is of special interest to see a big woolen mill company give up its housing. It may also sell its sewage purification field to the town.

From 1902–1925, Frederick S. Clark, the agent of the Talbot Mills, in North Billerica, Massachusetts, had me make plans to improve the mill grounds and the mill village, with its public buildings and employees' home grounds that were then owned by the mill company, but they have since been sold to employees and others. In front of the Post Office and the Oval, a park on a main thoroughfare, and in the village a special collection of shrubs was planted. A 74-page "Handbook for Planning and Planting Home Grounds" was issued in 1907 by the Talbot Mills. About 1902, Common Lilacs were planted in a hedgerow between the houses to shut out backyards, and they give the street special floral distinction when in flower. The back as well as front yards are kept in fine order and the village in many ways is an ideal one, with the Concord River passing through its center for water recreation, and the Kolrausch Playground back of the Talbot School for ball and other game competition, with an attractive picnic grove. This Company also has its own sewage system and purification plant. There was also a reservation given to the town on the Concord River. Plans were made for a playground back of the principal school building, and a reservation was given to the Historical Society that included the Middlesex Canal Viaduct, over the Shawsheen river, as a memorial to William Manning of East Chelmsford.

Close to the village is the Billerica Garden and suburb, and a housing development that was planned from 1913–1918 for the Rev. C. H. Williams,

with the aid of Arthur Comey of Cambridge. There are many houses here now.

It is said that Talbot Mills', at North Billerica, water supply for power from the Concord River was deficient at periods. They found that a manufacturing company on the Shawsheen River was opening the trap doors in the bottom of this Middlesex Canal Viaduct, and drawing the water through the Middlesex Canal that entered the Concord River at the Talbot Mills, in order to increase their supply. This was stopped by putting a dam across the old canal near the Concord River.

In 1902, I found in Carlisle, Massachusetts, a very notable group of big old White Pines that were to be cut by Arthur Warren of Chelmsford, a lumberman who loved trees and had left some notable trees elsewhere. He offered the standing trees at very low cost if they could be in a public reservation. The payment was made with the aid of James H. Bowditch, Allen Chamberlain, and Mr. Edwin A. Start, the State Forester, and they were taken over by the Appalachian Mountain Club, who later conveyed them to the State.

In 1932, Mr. Egbert Hans of my office, with by advice, made a Zoning Plan and Ordinance for Carlisle that was adopted by the town. The plan and ordinance provided that house lots should be an acre or over to avoid speculative, small-lots propositions that have injured residential values and been a burden for town tax collectors in many places.

In Wisconsin, there were sixty projects in fourteen cities and towns. There were plans for some 25 small home grounds in Appleton, Eau Claire, Grand Rapids, Morrill, Menominee, Milwaukee—where plans for the improving of the large farm of Captain Frederick Pabst and other of this family, near Milwaukee, were made. At Morrill there was a city park, waterworks, grounds and home grounds.

In 1895, I made plantations on the grounds of Senator James H. Stout, at Menominee, Wisconsin, for Olmsted, Olmsted, and Eliot. When I opened by office, Mr. Stout asked me to undertake other work there. There was some rearrangement of his home ground garden in 1897 and 1900. The principal projects on which work was done was the preparation of plans for the grading about the new Stout School and its walks, terraces, and basin in 1907–8, and the planting thereto that included a special collection of the native and exotics that were of special value there.

In 1896, with the aid of plans received from Olmsted, Olmsted, and Eliot, who had made an important plan of Milwaukee, my office checked and made plans for the city park system that included the rearranged and planting of the waterworks and other shore parks, the planning and planting of West, Mitchell, Kosicusko, and Washington Parks, and of adjacent and adjoining roads.

A study was made for a Milwaukee Exposition in 1898 on the lake shore, with the Tower of Babel as a dominant feature, but this was not realized.

A most interesting private project was the hunting lodge at Brule River in 1901–2 for H. C. Pierce of St. Louis, for whom I had also developed him summer home grounds at Pride's Crossing, Massachusetts, in 1902, for his lot in Bellefontaine Cemetery in St. Louis, and complete plans for the Pierce Memorial Cemetery in St. Lawrence, New York, with its lots and receiving tomb. At Brule River, miles of river, lake, and Cedar Island shore were examined from a canoe and miles of woodland trails on foot and on horseback to gain data for a general plan showing the character of the land and

its vegetation cover. Planting plans were made about the lodge and on Cedar Island. Here was a very find hunting and fishing preserve on lands that had been partly cut over, but on which were some of the finest big Pines that I have ever seen, and that I hope are still standing.

In 1902, there were planting plans for the Fowler and Coddington Schools, and in 1903 for the Stout Normal School of Dunn County.

During this period, and up to 1910, studies were made on "A Plan for Pleasure Roads and Reservations" and "A Plan of Typical Park Reservations for a City of 6000 People." This included the shores of the stream through the town, along which were very fine old Pine that were to be cut to close up a lumber industry here that had exhausted its timber supply. Mr. Stout, Mr. Wilson, and others brought about the preservation of these trees; and this reservation is one of the most notable scenic incidents of the region.

My first visit to Grand Rapids was in 1905, through Ferry and Glass, architects, of Milwaukee, Wisconsin, who were planning a home for T. E. Nash, near Nekoosa, who had me make plans for the arrangement and planting of his whole grounds. In 1905, for the Necosa Paper Company at Necosa, where I saw T. E. Nash, studies were made for drives, a recreation ground, and for planting about bandstand and mill offices, also for planting on the Main Street of the town and about its three depots.

In 1908, The Consolidated Water Power and Paper Company, of Grand Rapids, under the leadership of Lawrence E. Nash and George T. Meadland Wm. Giebels, had plans made for an office location on an island, for roads, and for planting the surroundings of the mills.

During the 1908–12 period, plans for home grounds were made and executed in Grand rapids for Judge W. J. Conway, Lawrence E. Nash, W. W. Ellis, George W. Mead, J. W. Brazean, and J. P. Witter, and for the subdivision of Homesite and Belle Islands for George W. Mead, and Mr. Pierce.

In 1911, I was asked by Earle Pease to make a study of Grand Rapids, Wisconsin. Surveys of the town were secured, and notes made thereon; and studies were made for the treatment of the river front, for combining railroads, and for a railroad freight station, proposed reservations, sites for public buildings, and for a boathouse. Here was an industrial town, with paper making as an important industry, on the banks of the Wisconsin River. Necosa, another shore town a little down the river also had its paper mills.

The spirit of the town was indicated by a public protest against a conspicuous advertising sign and a refusal to buy the product advertised that soon led to the removal of the sign. It is of interest to learn that like results have been brought about in the Hawaiian Islands. If enough people would refuse to buy products that are advertised on billboards or walls in such a way as to greatly injure landscape or architectural values, such offensive advertising would be stopped. The courts have ruled that an offence to the eye can be controlled as much as an offence to the ear or to the nose can be stopped.

The towns were attractive with the river outlooks to much wooded shore and to an island in the river. The owner of a mill where planting was first made, told me that the planting and attractive grounds had been a real business asset, as men in the mills had not only expressed their appreciation but had come back to his mill from other places to which they had gone with the urge to be employed here again because the conditions were so unattractive about the mills where they had been.

In addition to the town plan studies, there were plans made for the grounds of the Wisconsin Paper Company, of Grand Rapids.

Another thrilling experience was with Dwight L. Moody after I examined and reported to him on the grounds of the Northfield Academy. He was an open-minded man who seemed to be much interested in my suggestions as to the extensions of the buildings and grounds when the time came for this, and as to the modifications and additions thereof. He drove me himself to the station in a horse and buggy, and he kept the horse on the jump and gallop most of the time with frequent touches of the whip while he was keeping up a conversation with me on his objectives and on matters of mutual interest. He certainly did make clear to me his "direct manner on reaching men."

In 1997, work was done on the home grounds of W. C. Marshall at Laconia, New Hampshire. Here was a client who was much interested personally in the work that was being done. It is of special interest to me that he was the only client that I can recall who wrote me a letter in which he indicated his high appreciation of the work I had done for him. I, of course, know that most of my clients appreciated my work because practically all of my work came to me through the recommendation of clients.

At Hopedale, Massachuestts, from 1889 to 1891, land subdivision surveys and plans were made for lands of Frank J. Dutcher, and planting done about his home. From 1901 to 1905, his Oakledge, a new ledge top home, and its grounds were planned and constructed with Chapman and Fraser, of Boston as architects. Advantage was taken of the old home lawn and its planting, of an old garden with fruit trees, and of a nearby forest area. The old Dutcher family homestead was nearby. Ledges at and near the house with big white Oaks thereon framed in the front lawn, screened the entrance road and vehicle turn at the house from the front lawn, and helped to frame in this lawn and the back lawn. There was a pool with aquatic plants near the base of the high ledge at the end of the house. At the back of the house was a lawn, an up hill slope with flower beds, a small kitchen garden, and

a sloping grass field passing up to an Oak, Maple, and Birch forest on ledgy uplands. In no other home that I have had to do with in a majority of our states and in Canada were so many distinctive, closely associated, picturesque beauty and wild life values so close to the home and town center.

In 1890, while in the Olmsted Office, I was in charge of planning and planting the grounds of George A. Draper in Hopedale, on the road to Milford. The fine bank of Hemlock, faced down with Rhododendron and other planting thereon, has been growing there for nearly fifty years. In 1899 and 1900 surveys were made at Prospect and Water Streets, in Milford, for the Draper Company; and plans were made for land subdivision and for brick employees' home blocks with Peabody and Stearns as Architects, and Metcalf and Eddy as Sanitary Engineers. More work was done here in 1919–20. From 1909–1914 town maps were made—in part from the J. N. Darling and S. Mallie's maps—to include lands conveyed by the Draper Company to Hopedale for a part up to the Salt Box Road and the Mill Pond Playground.

For General Wm. F. Draper, studies were made for roads, trails, and an upland pond with a waterfall for his Forest Tract, that were not executed. In the Mill Creek valley and slope park holdings, the varied plant growth was mapped, trails, roadways, and railroad crossings and planting laid down. There was a rustic bridge, a hill top shelter tower, and a bridge across the River at the lower causeway. Nearly all of these plans were executed. Norway, Scotch, and White Pine Plantations, that are very effective now, were placed when Chestnuts were cut—on account of the incurable chestnut blight.

In 1909, plans were made and executed for the E. L. Osgood home grounds. There was also planting done at the Library, with its memorial statue signed by E. Howard Walker, and about the stone church designed by Edwin J. Lewis, Jr. who also designed the Community House. There were also Lombardy Poplars planted to screen factory buildings.

In 1913, plans were made for a housing project in the town, with a shore reservation on the lake, with Peabody and Stearns as architects, and Metcalf and Eddy as sanitary engineers. The next year, Arthur A. Shurtloff designed a like housing project on uplands further from the town. In 1933 a West Main Street, Hopedale, Draper Company Housing Development was planned and executed with the aid of Appleton and Stearns.

The Mill Pond Playground, with its border plantations, was planned and mostly executed in 1899. Chapman and Fraser designed a bath and boat house that were so popular that additions had to be made in 1917 and 1929, when the grounds were also replanted.

In 1912, a public comfort station was designed by J. H. Ritchie, and a grandstand was made in 1914. There was also advice given on school grounds and other public and private properties.

In 1923, maps were made for improving a dozen lots in the town. In 1926, there was a survey of General Wm. F. Draper's home property, based on a map of Gay and Dost; and the general Draper High School was located on the open lands with play space at the back and planting about the building and on boundaries. The architect was C. Wicker.

This record of word planned and executed with my advice, and the periods thereof, will I hope be of interest to Hopedale elders and the youth, who will soon be citizens, as well as to students of such town improvement work.

In all of this work in which Mr. Frank J. Dutcher was a leader, there came to citizens of his town and to myself inspiration, courage, and high ideals as a result of his persuasive, constructive, unobtrusive leadership in town planning and community welfare, thought, and action.

His work has added so much to the efficiency, beauty, service, and recreation values of Hopedale, that much of it will stand as his monument for all time.

In the winter of 1909, I prepared a "Report on the Improvement of Madison, New Jersey." after my examination of the town, for the Highway, park, and Playground Committee of the Madison Civic Association. Mrs. John J. C. Humbert Chm., Miss Alice L. Green, Mrs. Howard E. Lum, Edward P. Holden, Joseph W. McDowell, D. D. William H. Duckham, and Henry Hentz, Jr.

In the eight-page pamphlet, with its map, the following reservations were indicated; both shores of the Passaic River, a great swamp reservation south of the town, the black meadow reservation north of the town, with lake extensions to replace mosquito-breeding swamps, and wide parkways, mostly in stream valleys to connect the river side and swamp reserves, also a westerly ridge reservation. Between these reservations, most of the town was on a ridge about two hundred feet above the valleys, with many fine views therefrom.

It was said that costs need not be very heavy if land owners would give portions of their holdings for the reserves that would add much more value to their remaining lands than the value of the land given, and if widespread citizen cooperation could be gained.

Such improvements as were proposed would benefit residents. I was not called in again after my report was made, and do not know if any action was taken. There was no opportunity to get in touch with many people, as in Harrisburg, Pennsylvania, where like recommendations were made and executed.

One of the greatest privileges of my professional career was my association with Robert H. Treman and his family during the State, Ithaca Town, and Cornell University planning years of his life—in which he did so much in establishing public reservations in the unique, scenic Finger Lakes region, much of which we examined together.

He first called for me in 1900 to plan the grounds for his own and other family homes, other land units, the town of Ithaca, Cornell University, and to advise the Finger Lakes State Park Commission.

He gave the State large tracts of land about Buttermilk and Enfield Falls, near Ithaca. Later, he and Mrs. Treman added Connecticut Hill as an extension of the Enfield Falls reserve. There are few men in his state or elsewhere who have had as broad a conception of regional planning, or who have realized so fully the importance of securing for the people a connected system of land and water areas with special scenic, historic, and scientific values for their education, recreation, and inspiration for all time. His work has been done in such a quiet, modest way that the importance of his contribution to the general welfare of the state—Yes! of the Nation—is not generally known. Such land and its wild life cover as Mr. Terman has been responsible for securing will stand for all time, even if Mother Nature is the only caretaker, whereas comparatively few of men's memorial structures of early days have survived in their original condition. Even the monuments of the mighty Roman Emperors on the Appian Way are but ruing. Archaeological research shows wonderfully well-designed structures that go back thousands of years that are in buried ruins.

I was first introduced to Mr. Treman by Mr. Green, an architect of Buffalo, with whom I had worked on private places in Buffalo, and at whose recommendation I prepared a report on conditions at the University of California, at Oakland, where a world-wide competition plan was being con-

<MISSING SECTION?> University upstream holdings. Trails were also planned for the Fall Creek valley bluff tops through the University, and for the elimination of public dumps here. Mr. Treman also secured bluff and upland wooded slopes in Sixmile Creek Valley, near the town. Here we had a Community Day for opening trails and views, and the removal of dead wood, in which about 200 college professors, men of the town, and young people worked hard.

Mr. Treman, as a Cornell University officer and Ithaca citizen was most helpful in all town planning work. Such work included the well-shaded banks of the three streams that flowed through the town to Lake Cuyahoga that were partly held in place by low, retaining walls. Some shrub plantations were added, and the yellow-flowered Coltsfoot was encouraged to replace the rough grass. On Cascadilla Creek banks, continuous lines of Forsythia, Flowering Crab, and low shrubs were planted to give long lines of floral color at different seasons. Forsythia was also planted on the high steep cemetery and other banks on University Avenue.

In the Stewart Park open lands and wooded bird sanctuary at the head of the Lake, recreational buildings and grounds, distinctive trails plantations, and canoe ways were established. To the westward was a large swamp area that was filled with soil from the new state canal to make an airport. It was well located, quite close to the town, its railroad stations, and the main thoroughfare from the northward. The acquirement of the land came through the public-spirited action of Mr. Isadore Newman, who also set aside public reservations in the Cuyahoga Heights subdivision that he had me plan.

On January 3, 1908, "A Report to Accompany Study for a System of Reservations for Ithaca, New York, by Warren H. Manning, Boston, Massachusetts" was printed.

Mr. Treman passed away on January 4, 1937. Few men have received such an outstanding tribute for their constructive planning, thought, and action.

Tributes came from President Roosevelt, Governor Ichman, and there were about twelve full columns published as to his worth as a citizen in the Ithaca Journal of January 4 and 5.

In 1913–14, I made plans for the estate of George Bullock at Brickyard Point, Oyster Bay, Long Island, in which there was a notably attractive formal pool garden with waterfall, slipping down into evergreens from a hill top.

Mr. Bullock then had me make plans for an amusement park and for improvements along the lines of the Birmingham Alabama Railway Light and Power Company. This led to a study of the whole Birmingham district and a city plan in which reservations and road extensions were indicated, with recommendations for the improvement of existing parks. No action was taken by the city in executing these plans.

This was followed by surveys and plans for 1917 to 1928 of about 2000 acres on Shades Creek Valley and Shades Mountain for the Mountain Brooks estate, in consultation with J. H. Clanden, C. E., and W. H. Kessler, L. A. This gave me an opportunity to establish one of the valley reservations of my city plan.

There were plans made for the surroundings of the Tennessee Coal and Iron and Railway Company, for the home grounds of Mr. George Crawford, the president of this, and for Mr. Robert Jemison, Jr. the President of the Jemison Company. Mr. Jemison's home grounds, on a city lot with well planted fruit and a back yard garden, over which was a firm valley and ridge views, were typical of the Birmingham district home grounds of leading citizens, that were mostly on the Red Mountain ridges, from which fine views were to be had over the city to mountains beyond and over the Shades Creek Valley to the Mountain Brook development, with its golf course, its village, and its good-sized home lots.

Mr. Jemison and his father were outstanding citizens in what they had been able to do in the real estate and business development of the city and its region in a very quiet and unobtrusive way.

Little do Americans realized the importance of this industrial center with its coal, iron ore, lime deposits, and water powers, so clearly associated as to make it possible to produce iron at very low cost. It is at the head of navigation in the Black Warrior and Tombyler Rivers, with a feasible water connection at the Tennessee River.

This city should be not only one of the leading industrial cities of the South, but also a residential city of much distinction in winter and in summer because of its wooded highlands and its valley lands that have special scenic values, as the Allegheny Mountain uplands drop to the headwaters of the Gulf of Mexico stream at and near Birmingham.

The southeastern district of the United States, that includes the states between North Carolina, Kentucky, Louisiana, and Florida, is an industrial area that is constantly increasing in importance. The Manufacturer's Record of January 1938 shows the "outstanding advantages which this district offers to manufacturers." It does not adequately indicate the advantages that this region can offer to all year and to seasonal home makers.

In 1897, at Jackson Park, Chicago, as representative of the Olmsteds, I conferred with J. H. Foster, Superintendent of South Parks Chicago, with reference to planting, and the coming World's Fair.

In New Orleans, Louisiana, from 1898 to 1906, studies were made for arrangement of lots, planting, an obelisk and seats for the Feniston Street property of New Orleans, Real Estate, Mortgage, and Security Company, from surveys of J. L. Coleman, C. E. Also plans for an Athletic Park extension for the New Orleans Water Chute Company that went to Isadore Newman, Sr.: and advice given to Mr. Lewis Johnson.

From 1898–0. Henry F. Osborn and William T. Hornaday of the New York Zoological Park, in Bronx Park, had me make surveys of the lands therein and of Baird's Court with buildings, entrances for vehicles, existing trees. Plans were made for a carriage concourse on the shore of Lake Agassiz, and for planting along the Southern Boulevard and ledges. In April 1899, a general plan for the arrangement of buildings went to Messrs. Osborn, Hornaday, and C. Lafarge. In June there was a study for a building location study for Baird Court sent to Messrs. Osborn, Hornaday, Madison Grant, D. Ulrich, and George L. Heins. This was an especially interesting and instructive problem to me chiefly by reason of my association with such eminently capable men as Messrs. Hornaday and Osborn.

In 1897, at Cincinnati, Ohio, Mr. R. H. Warder, the Superintendent of Parks for this city, went over the city park system with proposed extensions of parks and parkways and asked me for a report on my recommendations which was sent. In 1901, L. A. Ault had me make plans for the development of his estate to include grading, planting, a formal garden, a turf alley with its flower garden, a wild garden with log steps, a vegetable garden, and plan of lawn and an exedra. Work was also done at his Camden, Maine, summer home. In 1902–3, the New Country Club had a study made for arrangement of grounds and drive, and for planting about the club house. L. C. Black

had home grounds study and planting plan. There was a subdivision plan for the John Baker Estate, made for John B. Keyes. Home ground studies were made for William M. Greene, John Lodyard Lincoln, and in 1912 for Harry F. Woods.

Minneapolis and St. Paul—practically one city—are notably attractive to visitors, residents, and for business by reason of location, historic, and landscape values. The St. Anthony and Minnehaha Falls hold up navigation and fixed here the Capital of both the Indian Tribes and of Minnesota. The falls, the steep-cliffed gorges of river, the hundred or more lakes about the cities with infinitely varied outline, bays, channels, shores, islands, and the much varied high lands within the cities gives unrivalled residential and institutional locations.

The following public and private lands for which I have given advice or plans will have an interest, when located, by reason of evidence of early development and a plant growth of about thirty years. My work there was continued by one of the boys of my office, Charles H. Ramsdel, at Minneapolis.

In 1898, F. H. Peavey had me plan his Higheroft Estate at Wayzata, Lake Minnetonka. There were plans for land divisions, gardens, greenhouses, and farm buildings. Mr. Peavey was keenly interested in the work. He came from Maine as did other leading citizens of the city. He said, "I had almost no money as a boy to buy things, but I could usually get what I wanted by trading." He had painted his water tower a sky blue to make it blend with the sky, but it was so conspicuous against the sky that Mr. Peavey said, "No more sky-blue for me!"

In 1899, studies were made for the Minnatonka Club where the old Lafayette Country Club of Minneapolis had been on Lake Minnetonka. From 1899 to 1904, reports or plans were made for Lyndale (Interlachen) Park, between Lakes Calhoun and Harriet, adjoining the 240 acre–Lakewood Cemetery.

Reports and plans were made for the Parkway on the East bank of the river, for Powderhorn Park, for Lake Harriet, Central Park, Minnekahda Pavillion at Lake Calhoun, and for the Minnekahda club grounds. The plans for the latter grounds went to J. A. Ridgeway, and the surveys came from F. H. Nutter. In 1900, the estate of George H. Dagett was planned.

In 1902–5, University of Minnesota studies were made with special attention given to the river bluff top where a road now is, to entrances, to new building locations, and to the Recreation Fields, and to planting. Mrs. E. C. Gala was especially interested in this. I came to know the past President Wm. W. Folwell and his daughter in their home. His clear conception of college needs and values, and of city history and conditions was a great help to me. I do not forget her comments on the work of a florist while she was away, in a front yard small round bed, "See how that vaccination spot has taken with its festering raw reds and yellows."

In 1902–4, plans were made for George Peavey grounds on Park Avenue. In 1902, home ground plans were made for Nathaniel Carpenter, E. J. Carpenter at Orne Point; in 1903, for A. C. Andrews, F. W. C. Clifford, C. F. Harrington, F. T. Heffelfinger, W. M. Savage, J. B. Gilfillian; in 1904, for C. C. Goodrich, F. W. Forman, F. B. Wells, G. W. Bestor; in 1904–5, J. S. Bell at Pernocroft and T. J. Kellog, and Fred Haigi at Springfield.

In 1902–5, J. B. Jenney called me to his Red Oak grounds where he had a new house covered in. He asked me where I would have placed the house if I had been called in before it was built, and I gave my reasons for another location. They led him to move the house to my site and grade over the first one.

In 1902–8 and in 1919, Mrs. E. C. Gale was given plans for the development of her Upland Farm at St. Bonifacius. In 1903–7, through the interest of Mrs. C. Hamlin, who was much interested in city planning, a study was made from a survey of L. W. Rondlet, City Engineer of Hall and Vista on

the axis of the State Capital Building at St. Paul, of which Cass Gilbert was the Architect. George H. Hazzard, an old resident, was helpful in this study. This plan was submitted in May, 1904; and it may have had some influence on the work as accomplished.

In 1903, plans were received for the Pillsbury Library grounds from Frank H. Nutters; and surveys and studies were made, in which a wall was important.

In 1901–3, Thomas Lowry, President of the Soo Railroad, worked with me in planning his country estate at Monticello. There was planting about the farm and its buildings, and the opening of views and a long vista that involved the cutting of many trees. He was a great lover of scenery, and did not hesitate to cut large trees to add to the beauty of the outlook. In 1903, he also had me plan a terrace, a garden, and planting, and indicate an extension of the Hennepin Avenue home in Minneapolis.

In 1899–1904, Charles M. Loring, a President of the Park and Outdoor Art Association, of which I was a Secretary, asked me to aid in the planning of Loring Park, his gift to the city. I also did some work on his home grounds. He was an outstanding citizen in his activities for the welfare of his fellow citizens.

In 1904–5, William Hood Dunwoody had me make plans of Groveland Terrace, on Lowry Hill in Minneapolis, with its outlook on Loring Park and The Parade. Its importance as a city planning factor, with its curving roads to fit a very irregular surface and provide better home lots is indicated on a city plan. At Mr. Dunwoody's property, Penhurst, on Groveland and Mr. Curve Avenues, plans were made for his home, with the aid of Mr. W. C. Whitney Architect. They included building locations, roads, terraces, gardens, planting, and special protection for an "Isolate Post."

Other estates that were planned in Groveland Terrace were for G. H. Partridge, A. R. Rogers, W. C. Edgar, and Charles J. Martin for whom a turf

terrace was made on top of the garage at the living floor level. Home ground plans were made at Markville, near Crystal Bay, in 1903–5 for Thomas Shevlin. Like plans were made for C. F. Wells, in 1905 at Lake Minnetonka, for H. M. Hill in 1907–8, for Fred B. Snyder in 1907–11, for Russell M. Bennett in 1910–11 on this lake. Like plans were made in St. Paul for William P. Mitchell in 1908, and for Worell Clarkson in 1907–11. In 1909, the D. Morrison estate was subdivided for J. R. Vanderlip in St. Paul.

In DesMoines, Iowa, in 1900, a study and report was made in the city on a river front boulevard, and in the city park system, in which was much brush up to an inch in diameter that was cleared by browsing goats, the sale of which gave a profit from this kind of clearing that was done with almost no man labor.

In 1907, work was done for Mr. and Mrs. Franklin D. Stout on the Isle of Happy Days, and Red Cedar Lake, Dubuque, Iowa. This estate had been very well designed by O. C. Simonds and Company of Chicago in 1903. I made a sketch map of the property, a study for a rose house for Mr. Simonds rose garden, for a wild garden, a lodge, and an arbor location, with some studies for drainage for the farm homestead. The place was a most attractive one, and the owners were most interested in the development and conservation of its beauty. Some studies were also made of the city parks.

From 1903 to 1905, surveys and plans were made of the Chatauqua Assembly grounds at Chatauqua, New York. The surveys included the village, the Assembly grounds, the Arnold Section, and the Arnold Square. There were also profiles along such dominant axial lines as from the main Plaza to the oval at The Hall of Christ. There were recommendations for the improvement of the village, for the location of commercial buildings on the Assembly grounds, and for vista lines, a village green roads, gardens, and general planting—especially in the Arnold Square section. The work was done with

the oversight of Doctor Hickman, and Mr. Arnold.

In 1906, at Montgomery, Alabama, a planting study was made for a city park, near the state Capitol, where people could go for the rest and recreation.

In 1906–7, Warren, a town near Bisbee, Arizona, in a fan-shaped mountain region valley was designed with Hughes Elliot, architect. He presented a seven-page articles with a colored bird's eye and thirty drawings in the Architectural Review of September, 1908.

At my 1906 Spring visit there, C. W. VanDyke representing Henry B. Hoveland, and H. A. Smith asked me to find the best man to aid me in working out Spanish and Pueblo architectural conceptions, with much detail based on such plant forms as the Tree and Globe Cactus, Century Plant, and Spanish Dagger.

After an extended search, I found Mr. Elliot in a New Orleans school.

A dominant feature of the plan was a central 200-foot wide Plaza, with a State Capitol conception at its upper end, and a Mexican mountain mass as the visual terminus of the valley end. Across this valley view was an arched water supply Aqueduct.

The promoters could not complete their conception, but I am told that many of the streets are in place.

Arizona is one of the most fascinating regions I have been in by reason of its greatly varied lay of the land, a peculiarly attractive unity in its grayish-green landscape color schemes, brilliant atmospheric colors, color reflections on clouds, and the miracles of upspringing flower carpets after rain.

An occasional Rattlesnake, Gila-monster, Horned-toad, and yells of "Hold-up" when I was hurrying too much at the 5000-foot elevation were memorable incidents. A mountain was named for me, but this name has probably evaporated by now.

In 1907, Mr. Frank G. Thompson, a Pennsylvania railroad executive, and Miss Anna M. Thompson of Merion, Pennsylvania, had me plan their properties. They were so much interested in an extension of the Philadelphia Metropolitan Parks that Mr. Thompson drove with me through Philadelphia, Montgomery, and Delaware counties to consider a park system to connect with Fairmount Park, the lower Indian Creek districts, and westward. How much of this proposed park extension was executed I do not know. I also covered much of this ground on a bicycle, as it could be propelled through all types of roads and paths, hay fields, and shallow water where the bottom was firm.

From 1907–9, studies were made for locating the Confederate Memorial Institute, Richmond, Va., with Bissell and Sinkler the architects, its Court of Honor, for memorial statues, and its planting. On the committee were Hon. J. Taylor Ellyson, Lieutenant Governor of the State as chairman, and Stewart Bryan. Copies of the plan went to Judge George L. Christian and E. A. Alderman, President of the University of Virginia. Some advice was also given at the adjoining Confederate Veteran's Home. These institutions are important factor in the city plan.

In 1908–9, plans were made in Scranton, Pennsylvania, for Mayaug park Lakes, and sketches for a bath house. This was a most interesting city to study as its lands ran from 200-foot elevation on the Lackawana River, Roaring Brook, and Stafford Meadow, up to 1000 feet between these brooks to the southeast of the city and near its settled areas.

In 1902–6 and more recently, plans for Harrisburg have been made and executed with results that made this one of the most important projects of my career.

"The Awakening of Harrisburg" Pa. 1902–5 by J. Horace McFarland of this city, who was a dominant inspirer in this Awakening, and in many like projects elsewhere, says that this Awakening was started on December 20, 1900, by Miss Myra Lloyd Dock, with an illustrated talk at a large Board of Trade

meeting. Mr. J. V. W. Reynders secured subscriptions to cover the cost of an exceedingly well organized educational campaign that reached all the citizens and the children and resulted in favorable vote on increasing the City debt by $1,090,000, for the development of the city.

James H. Fuertos—Sanitary Engineer, M. R. Sherrerd—Highway Engineer, and Warren H. Manning were engaged as advisers.

Under the most efficient leadership of Mayor Vance C. McCormick, who was succeeded by Edward Z. Gross, the work proceeded under the distraction of a City Planning Committee, with John Hoffer as Chairman.

The acquirement of Wildwood Park, Reservoir Park Additions, Italian Park, Rover Island Parks, Playgrounds—20 or more—Riverside Parks for five miles, Parkways for about 15 miles, and the development of most of these areas for public use and enjoyment and the building of river shore walk and steps over a new intercepting sewer and a river dam, together with important street improvements was all done by 1906, with an increase of only a half-mill in the city taxes.

Nearly all Parkway and River Shore lands were given by the owners to the city. When I told the Committee that the $250,000, assigned for Park Lands and Improvements, would only be sufficient for large park areas and improvements, and that Parkway and Shore land must come as a gift from owners, the Chairman said, "You do not know Pennsylvania Dutch. They do not give land." But Mr. Hoffer, who was one of this clan, did give 25 acres of his land, and there was every effort on his part to advance the work in ways that would make Harrisburg one of the most beautiful and serviceable cities in America.

Senator Cameron also gave 60 of his 600 acres, to include a part of Spring Creek valley in which the Cameron Parkway was constructed. Front Street lot owners gave their river frontage across the street. They were about 40 feet wide.

In this period, I was complimented as I had never been before, by being made the special guest at a dinner that was arranged by leading citizens as a recognition of the work I had done for the city.

Another dominantly important project of this period was the acquirement of land back of the State Capitol on my recommendation, and the modification of the roads to give better connection with the 120-foot wide State Street on which the Capitol is the terminus for over a mile and a half as one enters the city from the eastward. The curving roads leading up to the terrace in front of the Capital for automobiles were made from my plans. Governor Martin G. Brumbaugh was very helpful in bringing this all about.

In 1936-7, I have had other calls to Harrisburg from Mr. J. Calvin Frank, the Director of Parks and Public Grounds, to advise with reference to the treatment of the shrub plantations in the Parks and many other incidents in park development and maintenance. One of the most important results was the establishment of a great trial Rose Garden in Wildwood Park as suggested by Mr. J. Horace McFarland.

A dominantly important problem came with treatment of the River Front after it as been ripped to pieces very badly by a 1936 flood. It had to be regraded and replanted. As there were come rip-rapped slopes with shrubs between the stones that had withstood the flood, it was decided to do more of this with broken pavement that was in fills, and use such plants as Matrimony Vine, some Roses, Hall's Honeysuckle, Snowberry, et cetera. This had the approval of City Engineer A. Cowden, who from the beginning of my work at Harrisburg could always be depended up on for an intimate knowledge of conditions and wise, far-seeing advice.

There are several projects that should be studied for action.

A Metropolitan Harrisburg to include adjacent cities and towns with authority to establish an adequate thoroughfare, airway, and parkway system to include both Susquehanna River shores and islands, and the valleys of

tributaries. There should be a zoning study and plan developed to prevent the impairment of land values of improper uses.

A bridge across the Susquehanna to continue State Street, with perhaps a foot bridge as the first unit.

A Governor's Mansion on the hill summit across the river to form the scenic terminus of the proposed bridge, with a State Park of over 100 acres to include the foregrounds and protect the very fine views from the hill summit.

To make Harrisburg the Most Beautiful Floral City in the World by leading its people to select the plants with brilliant flowers, fruit, or leaf and twig values for spring, summer, fall, and winter, that will give their street notable individuality and distinction and then aid them to secure the plants therefore, largely by growing them at their homes. The Park and Public grounds Department, in cooperation with Garden Clubs, and many other adult and juvenile organizations, and with the aid of State and Federal agencies could bring this about, in ways that would advance like action in the Nation as a whole—and they are doing it.

There should be a connected Public Reservation System, largely of wild and forest lands, of which the State already has large holdings. Much of such land could be secured as a gift from owners, to stand for all time as a memorial to the donor or to a friend, or to an event or movement, having historic or sociological values. This would be far-reaching—Yes! State-Wide with Harrisburg the State Capital City as its center.

A casual study of the lay of the land in Pennsylvania, with its easterly level and rolling land units separated by its broad, high, double loops or S. of mountain ranges from New York to Maryland, with its much varied river systems flowing out of the State in all directions, from its great westerly system of rolling and rivers, indicates the distinction the State may gain from such planting as is referred to in the last paragraph.

If Harrisburg would lead in such planning by having much of the gathering of data and much of the recommendations come from citizens in the regions they are familiar with, and especially from the young people as a part of their recreational activities, a plan of the people would be produced that could be carried out on a Pay-as-you-go basis instead of with heavy bond issues that it will be difficult to secure for a long period to come. A People's Plan, made with the aid of planning experts, is much more likely to be realized than an expert's plans.

What I have said here with reference to Pennsylvania planning applies as well to all States and the Nation.

I have made plans for home ground development in and near Harrisburg for J. Horace McFarland at Breeze Hill in 1909, for Martin E. Olmsted at Cedar Cliff Farm, and for Vance McCormick on this farm at a later period, and for Henry McCormick.

In 1904–5, in Providence, Rhode Island, recommendations were made for a traffic circle at Francis and Gasper Streets. A study was made for the surrounding of the railroad station, with planting proposed on the steep banks on the entrance side, and in the yards of public buildings, around the open square northwest of the station to frame it in with tall trees most attractively, in conjunction with the capitol grounds planting, with a parking space for automobiles. Planting recommendations were made for Roger William Park and its entrances, and for the Public Garden. A plan was made for a Pleasant Valley Parkway, and a playground therein. Some of these recommendations were executed.

In 1905–11, Wilkes Barre, Pennsylvania, a city plan study was begun by assembling plans from the city engineers and other offices of streets, public parks, playgrounds, public buildings, with special sketches of the school grounds. There were maps of such creek valleys as Laurel Run, Ashley and Solomon Creeks, and Spring Brook with the water supply holdings there. There were flooded area maps, plans of numerous coal company holdings, and at Bowman Hill. In 1906, a first study was made for Nelson Bennett, who had donated land for playgrounds. This study showed proposed parks and parkways, and was made up from my report. There was also a study of the region about the city giving mountain elevations and the location of Lovell's Island and Campbell's Ledges.

In 1907, many studies were made and sent to Major E. Stearns. They included the setting for a monument on the Common at Market Street, and for walks and for a garden. There were plans for the Nesbit part of Riverside Park showing roads and trees, for an entrance, for an athletic field and nursery. There was a plan for the Luzerne County Court House and its surroundings, for grading, retaining walls, and getaway.

In 1997–8, plans were made for river bank protection to protect

properties against flood. This was a riprap of stone from the mines with the Matrimony Vine planted between to hold the stones in place and give a summer green foliage cover and winter twig cover.

Reference has already been made to the work that was done in Ithaca, New York, for the University, for home grounds, and some public grounds. In 1908, I prepared a report that was published as an eight-page pamphlet. It was addressed to R. H. Treman the dominant member of the Ithaca Creek, Drainage, and Park Commission. A Glenn Reservation system was urged to include the very picturesque, deep, narrow glens, with much of the very steep slope land that dropped abruptly from the high uplands about Lakes Coneca and Cuyahoga to the water's edge. This recommendation resulted in the acquirement of Buttermilk and Enfield Falls, and Connecticut Hill—the highest of the region—by Mr. and Mrs. Treman, and their presentation of these units and much connecting land to the State as a part of a connected system of state reservations, that was also recommended in the report.

I also examined and reported upon Watkins Glen, Taghonic Falls, and other lands that were being considered by the New York State Council of Parks, of which Mr. R. H. Treman was a dominant member, and for the formation of which he was largely responsible. Much land was secured by gift or purchase. Let me say here that such gifts, however small they may be, should be permanently recorded on markers at the entrance or elsewhere on such holdings, and in the reports of such commissions.

The Ithaca report also recommended the broadening of stream channels to control floods through the city, and also for planting along the shores—much of which was done. Plans were made and executed for the improvement of DeWitte Park. Recommendations for establishing a Civic Center and extending and broadening some streets were only executed in part. The <ILLEGIBLE WORD, "Stewer's?"> Memorial Park was made at the head of Cuyahoga Lake as a memorial to a Mayor of the city who aided in the development of plans. Adjoining this was a bird

sanctuary in tall woods.

An important project accomplished, largely through the public-spirited action of Mr. Newman, was the acquirement of land west of this park and southward to the railroad yards, and along a truck line thoroughfare for an airport, that was filled by excavation from the State Canal. This extended from the lake between the two areas referred to, to the city railroad center. Plans were made for more direct ways to Cornell University, from the city, for Mayor Pergholz. There was also a study for planting plans made for the Ithaca Country Club.

In 1912, there was a plan for the subdivision of Ithaca Hillside Company lands, that included a most interesting steep slope with much varied hillside growth, an old gravel pit, and a steep road with a fine city view. At an earlier period, plans were made for the property on which is the house of Mr. R. H. Treman, his brother S. E. Treman, and Mrs. J. E. VanCleef , Messrs Sherman Peer, C. Crandal, and Edward Hayes gave much data for these studies. For the New York State Council of Parks, state maps were made on which many planning factors were indicated, and many reservations outlined. On a United States map, the Finger Lakes region that is so distinctive—Yes! Unique—was clearly designated. My studies and reports for this State Council had to do especially with areas in this region that were being considered for state parks, and of which many were acquired.

In 1909, at Duluth, Michigan, arrangement of grounds and planting plans were made for park lands between Eighth Avenue and Chester Creek, and on Avenue E. On Lakeshore. In 1913, Alfred C. Jopling, on the Mackinac Island State Park Commission, had me prepare, with Rev. F. A. O'Brien, Ira A. Adams, Leo E. Butzel, E. O. Woods, Harry Colsman, Charles Osborn, surveys and plans of Mackinac Island and Michillimackinac Park—with its ancient fort at Mackinaw City, Michigan, both places of great historic interest. The fort had been destroyed, but its location could be traced; and many interesting

relics had been secured by George E. <ILLEGIBLE> in digging over the soil. The recommendations were to have to the old fort restored, to save the attractive forest growth about it, open up paths and trails, and provide for picnic parties.

Mackinaw City was an interesting railroad terminal town from which the boats passed to Mackinac Island, and especially to St. Igenes to connect with rails. Mackinac Island is unique in many ways. Much of its land is held by the State and Nation. Here is the old fort that played such an important part in the early history of our country. Here was a stopping place for the earliest explorers and for the religious teachers and leaders who did so much for the Indians. Here was a principal fur-trading station. Now there are important hotels, golf courses, roads, and trails for tourist and recreational uses, life-saving stations, and private holdings. The geological formations here are most interesting, with high rock pinnacles, a great rock arch, and varied cliffs. The vegetation is also of much interest, with Arbor Vitae dominant in places, Spruce, Hemlock, Canoe Birch, Maples, and the much varied ground cover of Fern, Mosses, and flowering plants. There are also many interesting exotics in private grounds.

My plans included public and private land boundaries, the lay of the land, its condition, its vegetation and uses, topography—showing all land conditions, and with recommendations for modifying existing ways and for now ways to make more accessible the points of historic and scenic interest. There were some recommendations concerning planting and thinning, especially in the natural woodlands, to bring out the singularly distinctive native growths and to open some vistas and panorama views. As automobiles were excluded from the island, there was no parking problem to consider for that period. The probability of their being admitted and properly controlled, however, had to be considered in the planning. One of the most interesting memorials was established here to Constance Fenimore Woolson in The Hook, above

the site of the old Agency House, where she lived at one time, and gathered data and made observations that are recorded in her book that pertains to this island and its history. The memorial is a feminine figure placed on the surface of a great lodge, from the design of William Ordway Partridge. This memorial was established through the generosity of the Cleveland, Ohio, Mather family, kindred of Miss Woolson.

In 1912, I was called to Bangor, Maine, for replanning the burned district in the heart of the city, with a Committee on Civic Improvement—of which C. E. Cooms, City Engineer, was Chairman and exceedingly helpful with his data, and with J. P. Prawley, and F. C. Bragg. A dam was recommended to form a water basin in the city, with travel ways and new business frontages on each bank, and with a new bridge.

Some street and street car line changes were proposed, and special attention was given to the importance of so designing buildings at street ends as to make the views through streets attractive. A new library, a new High School, and open land enough for a school extension and playground were proposed. Library plans were made by Peabody and Stearns of Boston. Sites for a Court House, City Hall, and Post Office were proposed. The first station was to be rebuilt on its former site. Outside of the burned district, it was recommended that reservations be secured on the banks of the Kenduskeag and Penobscot Rivers for trails, roads, and scenic values. Forest Avenue and Broadway Park improvements were proposed. While these recommendations were not all adopted, enough were to make the city center much more attractive and serviceable.

Bangor, at the head of the Penobscot River navigation, near the center of the State, and with sixteen radical roads heading into the country, should be made so convenient and attractive as to be the outstanding island city of Maine—as it is now in many respects.

In 1912—17, plans were made with Mann and <ILLEGIBLE, "McVeillo?">, architects, for the Goodyear Heights addition to Akron, Ohio, for F. A. Seiherling—President of the Goodyear Manufacturing Company, and later for an extension of the roof. Two hundred and thirty-six plans included surveys and plans for a public square, bridge, underground pipes, children's playground, house locations, and planting. This subdivision, now well filled with homes, is an attractive addition to the city. In 1913, studies were made for a distributing reservoir in Akron, Ohio, with planting plans later.

In 1929, Mr. M. P. Tucker, director of the Akron Bureau of Water Supply Investigation, asked me to examine and report on a new reservoir site and other land holidays. With Mr. Tucker, or G. <ILLEGIBLE, "Gale?"> Dixon the engineer, I flew over Lake Rockwell, Hirsch Reservoir, and the townships of Manture, Hirma, and Auburn, in the Cuyahoga River Basin. These water bodies, and the watershed lands about them were of dominant importance to the city of Akron and its people who were permitted to drive and walk through, under proper restrictions to preserve the purity of the water supply. There had been considerable evergreen planting done, with the natural forest growth and sprout land.

In our small Goodyear Blimp air vehicle, we had the roughest ride in the air I ever had. We were tipped all ways by winds that had held us down for two days. Fortunately, I was not seasick enough to prevent my taking observations and notes. There was a distinct advantage in a blimp over an airplane, as we could move about much more freely in all directions, slower and nearer the surface, and readily return for other examinations. I could determine the character of the growth quite well from the plant forms and the colors of spring/leaves. Mr. Tucker had a high appreciation of scenic values, and we were able to consider from the air and from automobile the modification in existing planting, and the new plantations for their scenic and erosion protection values as seen from the uplands and over existing and proposed water areas.

In 1913, at Tiffin, Ohio, a study and a birdseye view were prepared for the improvement of the Sandusky River banks and channel, as seen looking to the southwest from above the junction of Washington Street and the railroad—a recommendation for which detailed plans were not made, as it was never fully carried out. Plans were also made for the River View Recreation Park, for the home grounds of Mrs. Samuel B. Sneath, Mrs. G. E. Sneath, Mrs. R. D. Sneath, and W. H. Kildow.

In 1920, the Mill Creek Park Commission, of Youngstown, Ohio, called for my advice with reference to the development of its holdings. This park, that included the banks and valleys of Hill Creek and several of its tributaries, and lands adjacent thereto, was established largely through the public-spirited resourcefulness of Mr. Rogers, whose bronze statue is at a memorial entrance to the park. For this, the children of the city made contributions in appreciation of what he had done for their education and recreation.

The Hill Creek entered the city through the fields, through a lake that had been dammed for power in early days, then through a deep ravine between cliffs and steep banks, on which there was a fine growth of evergreen and deciduous trees, then over another dam and down to the Mahoning River in the heart of the city. The parks were wide enough in many places to provide for marginal bluff-top roads and some valley roads, and for bridle paths, footpaths, service buildings for boating and bathing, and various types of picnic and playgrounds.

It was my privilege to go over these grounds with Mr. Rogers while he was initiating the movement. He was a rather slender, smooth-faced, quiet man, who was very modest, but very much in earnest in the presentation of his ideals. He was a great lover of natural beauty, and it was an inspiration to be with him and have him indicate by a motion or a very few words the objects of supreme beauty that he wanted to save. I can well realize how the children of the city came to love him if they went through the parks under his guidance.

The Hill Creek Park Commission, of which W. C. Stitt was chairman, had jurisdiction over a wide territory outside of the city, chiefly to the southward and westward, through which they were engaged in extending the Mill Creek Park into a system of parkways and reservations. Plans were made of numerous adjacent towns with property lines and physical features of interest indicated, especially in the Sanitary District of the Trumbull and Mahoning Counties, with consideration given the whole State. There were studies of road relocations, of golf courses made with the advice of Donald Ross, with club house plans by Brooks and Dyer, architects. There were visits at intervals up to 1934.

The Mahoning County Road of Remembrance, under the leadership of Mrs. A. Powers Smith, and Mrs. T. C. Muldoon, was examined and planned from Kingsville, on Lake Erie, to East Liverpool on the Ohio River, with Youngstown near its center. The plan was to develop the much varied natural growth and outlooks along the way and to make new plantations of trees to make this a tribute to World War soldiers. When completed, it will be one of he most distinctive and attractive memorials in this country. There was also a memorial marker put in place by the Mahoning Chapter of D. A. R., under the direction of Mrs. H. M. Kelley and R. S. Williams. It was designed by my office, and I was able to secure the boulders for the memorial from the sites of the Revolutionary Battles at Concord, Massachusetts, at the Concord River Bridge and at Lexington. The lettering was done on the big boulder in Concord, Massachusetts. There was also a stone from the grounds of the Hancock Clark house in Lexington, to which John Hancock and Sam Adams went when they heard that the British were coming, and from where they went to a house in Billerica, Mass., before the British reached Concord. There was also a stone from the grounds of the Manning Manse, in North Billerica, as there were Manning in the fight from there, and as the early Manning Youngstown pioneers were descended therefrom. Mr. W. F. Maags of the Youngstown Vindicator was very helpful in

advancing such projects as have been referred to, through publicity in his paper.

Henry Manning Garlick of Youngstown was President of the Manning Family Association, and issued "We Should Not Forget" by Egbert Hans, that gave the story of the Manning family with its coat-of-arms, in 1924.

In 1911–12, William M. Lesley, who had built a house, garage, and most attractive grounds on the edge of the edge of the westerly bluff of Lookout Mountain, Chattanooga, Tennessee, called my in for advice. Advantage was taken of deciduous and evergreen trees on the ground, in which a most varied wild garden was planted with Azaleas and Flowering Dogwood dominant. At the end of the house was a fine mass of Rhododendrons. The interest of Mr. Lesley and his family was so keen, and their appreciation of scenic beauty so marked, that the nearby and distant pictorial values of the place were made most alluring.

In 1925, work was undertaken on several projects in Chattanooga, Tennessee, the most interesting being on Lookout Mountain, with its Civil War fortification locations and its wonderful view into the Tennessee River Valley with its great meadows and sweeping river curves, with mountains beyond. Here plans were made for the Fairyland Subdivision on the mountain summit and northerly slope, in which provision was made for public buildings, homes, and a Golf Course. Big ledges, irregularities of surface, and fine views gave the property and its home lots special distinction and individuality. There was a special house site for O. B. Andrews, and Mr. Carter. Mr. Edward Betts was the engineer.

Mrs. Henry O. Ewing had a fine home on sloping land, in which she had a house with colonnade, gardens, and a spring fed pool. She asked us to make plans and execute them for additional gardens and modifications in the planting. It is of interest to know that I looked up to a man who was passing with a plant collector's case and saw my old friend Liberty H. Baily, of Ithaca, N. Y.,

and Cornell University—the author of the Encyclopedia of Horticulture.

Alfred H. Thatcher had me make recommendations for the development of the West Brow Land Company holdings. Morris E. Temple had me make a study for a road and for planting on the H. F. Temple Estate. Mrs. C. M. Wellington had a sketch plan and recommendation for her lot. For the Hunt Club, a sketch and recommendations were made. The Garden Club had me give them an address and much of the private work on the Mountain grew out of this. This Club, with the authority of the town of Lookout Mountain, and under the direction of Mrs. Burlingame Low, had Sunset Park planned to give a parking space, steps, a rock garden, and other plantations. Other people on the mountain who secured my advice were: Mrs. Hunt, Mrs. W. B. Miller, Mrs. Richard Thatcher, Mrs. W. J. Dodge, Mrs. Will A. Martin, Mrs. Dyer Butterfield, and Henry King.

On Signal Mountain, across the valley, advice was given to E. Y. Chapin. In the valley below the mountain, Bruce R. Crabtree had me examine his 500-acre land holdings in Belvoir Farm.

In the center of Chattanooga, the Eleventh Street Realty Company, represented by Mr. Henry King, had a large land holding for which plans were made. The plans provided for a Civic Center, opportunity for a Boulevard at the Southern Railway, for parks, for street improvements to facilitate traffic, and for business and residential areas. It was an unusual opportunity to make the city more serviceable and attractive. I do not know how much of the plan was executed, as I was not called in to direct its execution. Studies were also made with recommendations for the McCallie private school grounds.

A sketch study and birdseye picture for the subdivision of a Missionary Ridge top summit holding, were made to include many acres, but detail plans were not made.

An especially important project was a Lookout Mountain reservation to include its steep bluffs that Adolph Oches, of the New York Time, was endeavoring to bring about as a memorial park—this being his home town.

He talked with my about it when I met him in New York. In the Fairyland studies, bluffs were set aside for such a reservation. I do not know how far he was able to go with this project before he passed away.

Boston, Massachusetts, has a most picturesque and romantic harbor, with its many, many and much varied islands and shores and views to distant hills; and it should be made the most beautiful floral harbor in the World, with great masses of flowering plants on steep slopes to ad beauty and stop erosion into harbor channels. In 1886, Desmond Fitzgerald gained an appropriation from the city to "restore the sylvan covering to the islands," but it was vetoed by the Mayor. In 1905, State Forester Ackerman made a study and like recommendations. In 1910, the Appalachian Mountain Club called for an appropriation from the Legislature of $25,000, but it was not made. Mr. Frederick Law Olmsted Sr., with the knowledge I had gained in a boat ride to every island, on which I gained a knowledge of all plants thereon, also recommended island planting. The Austrian and Scotch Pine, planted about twenty years ago under the direction of State Forester Cook, are now twenty feet high, and show what notable results can be secured with planting. In 1933, C. C. C. boys planted these pines on Federal holdings in the harbor and they are doing well.

My first interest began when my father, Jacob W. Manning, of the Reading Nursery, Reading, Mass., told me that he had planted the trees on Georges Island, about Fort Warren in 1849. In the 90's I spent a summer at Crow Point, in Hingham, and rowed to all the islands, listed the plants thereon, and gained knowledge of their greatly varied surface conditions and geological formation, with the slatox, conglomerates, and larva ledges. We were at Winthrop another summer, and I found more rats on Snake Island than I had ever seen before in a limited area.

In 1934, and up to 1936 when I was with the Emergency Relief Administration, I made detailed plans and estimates for planting the islands and shores in the fifteen towns thereon, with the aid of Park Commissioner William P. Long, the heads of

the Federal, State, and City institutions on the islands and the Port Authority. These studies provided principally for covering the bare slopes as indicated above. The plants selected were mostly exotics that had proved their values on the islands in forming fine trees and ground covers. Among the latter, the most notable plant is the Rugosa Rose that has taken possession of many miles of tide edge seashore, and is holding against tide wash better than any native.

A landscaping nurseryman, Harlan F. Kelsey, whom I call one of my boys as he was in my office for a time, gained a protest from several organizations against the use of exotics, without having gained a knowledge that decidedly the most successful plants on the islands are the exotics. About the only native shrubs that were holding their own on several islands were the Bayberry, Sumac, and Beach Plum—and they were not very common.

Those plans were made with the aid of the Emergency Relief and like organizations and were approved by the Federal authorities; but as yet the planting has not been started.

In this study, I had the aid of Mr. Patrick J. Connolly who published in 1932, a 50-page illustrated booklet on "Islands of Boston Harbor, 1630–1932," and "Green Isles of Romance." I also had the aid of Mr. And Mrs. Edward Rowe Snow, who has issued a book of 367 pages, with illustrations, in 500 copies—"The Islands of Boston Harbor, Their History and Romance, 1626 to 1935." Mr. and Mrs. Snow took me to several islands in their boat; and I gained more of the history and hidden nooks from him than could have been secured from any other source. Mr. Snow's resourcefulness and fine physical condition was indicated when the boat stopped in shallow water nearly a hundred feet from an island shore, and he waded to and from the shore with me on "pig-back"—the first pig-back ride since childhood days. It was an event!

Another trip, in a party with Mr. Snow, was to Boston Light where he was responsible for a memorial tablet to early lighthouse keepers. My chief

excitement here was to go about with the little children of the island to gain a knowledge of the wild and garden plants of this island in the sea. As we were leaving, a little girl yelled, "Come quick, I have found a new plant!" It was a Scotch Thistle, with its big gray prickly leaves in a ledge crevice. It probably had come from Bumpkin Island over a mile away, where I had found a large colony some forty years ago.

No action has been taken yet for the execution of these plans, even though they were approved in 1936 by the Federal authorities.

In 1898, after my Jamestown Exposition work, I made a "Study for Development of the University of Virginia" that is published, with a "Plan of Existing Conditions" in the book "Thomas Jefferson as an Architect and Designer of Landscapes," by William Alexander Lambeth, M. D. of the University and Warren H. Manning, of which Houghton Mifflin Company, Cambridge, Mass., printed 535 copies in 1913.

No project could be more inspiring, as Thomas Jefferson selected the site and designed the grounds and buildings after the completion of his Monticello home about 1772. As this man was America's first Regional Planner, through his study and action for the expansion of our country and the first dominant Landscape Designer, Architect, and Builder as indicated by his work at Charlottesville and elsewhere in the southlands. His biographers do not fully recognize his appreciation of landscape values.

The evidence of this comes from the selection of the finest upland site for Monticello in his father's 3,000 acres, concerning which he said, "And our own dear Monticello, where Nature has spread such a rich mantle under the eye, mountains, forests, rocks, river. There is a mountain there in the opposite directions of the afternoon's sun, the valley between which and Monticello, is five hundred feet deep. How sublime to look down up on the workhouse of Nature to see her clouds, hail, snow, rain, thunder, all fabricated at our feet."

It was doubtless like inspiration that led him to place the University in the "deep" valley where the lives of men could be "fabricated at our feet."

As Doctor Lambeth says, Monticello was a new conception of the art of home building, wherein the outside accumulation of offices and shops for all activities of a plantation business as well as the personal home service were "so veiled as to prevent their overflow into, and their hard intrusion upon the spirit of the home."

This was accomplished by hiding work and service rooms under terraces and along corridors in ways that would prevent their intruding into the landscape, lawn, and garden views as seen from the home.

Mr. Jefferson's appreciation of the Nature garden values is indicated by his statement that Gardens "are peculiarly worth the attention of an American because it is the country of all others where the noblest gardens may be made without expense. We have only to cut out the superabundant plants." It is so obvious that he did this at Monticello. The time will come when there will be much higher appreciation of the development and preservation of our nation-wide wild gardens.

Should not Monticello and the University of Virginia be made a National Monument to a President who excelled in breadth of view with reference to broadening our lands and governmental foundations, and our conceptions of landscape and building values and appreciations.

In such a Monument, the University should be held to the original Jeffersonian conditions where they now exist and where departures have been made, they should be made to conform to such conditions absolutely.

These conditions and the location were established by three Presidents of the United States, on the Board of Trustees—Jefferson, Madison, Monroe, who were at the laying of the cornerstone October 6, 1817.

In April 1821, in referring to the University plan, Mr. Jefferson stated that the "village form was preferable to a single great building."

The Trustees' approval was for "buildings about a square, with grass and trees, the whole in form and effect to have the character of an academic village." There was a question as to whether a direct northerly and southerly axis line for the lawn main axis line from the Rotunda would not fit the ground better. Mr. Jefferson fixed this line to center on a mid-distance hill and kept the south end of the square open to preserve this view and the view of the Rotunda from the hill top. The Cabel Hall building was placed at the end of this square, where there should have been no building screen.

The wisdom of Mr. Jefferson's orientation of the main group of buildings is made obvious in my Study for Development when it is compared with the Plan of Existing Conditions, for it is parallel with the lay of the land to the eastward and westward, upon which the three new courts are located in my studies, with President E. A. Alderman, Dr. W. A. Lambeth, Ludlow and Peabody, architects, J. K. Peebles, Engineer, and others to whom we went for advice.

In this study, it was recommended that the lake to the northward be enlarged, that a new lake be formed, that the Fraternity Group, tennis courts and athletic field be enlarged, and that private properties to the eastward as far as the C and O Railroad be acquired. A more direct eastward road to the railroad station was indicated. To the westward an outdoor Amphitheater and an extension of the Faculty group was recommended. The new educational court to the westward and the two new courts to the eastward would about double the buildings.

It was also recommended that the badly crowded trees about the buildings and grounds be thinned out enough to give the better trees room to develop, and especially to open framed in views to the buildings, from them, the grounds about, and to distant views. There seemed to be the usual indisposition to cut trees among these people who would not allow themselves or their families to be so crowded among undesirable neighbors as to check development and destroy attractive outlooks.

I was especially concerned about new buildings, such as Cabal Hall, or changes in existing buildings, that represented the work of Jefferson the designer, even though they did in general conform to his work. I felt that all new buildings and all changes in older ones should follow the Jeffersonian design and construction so faithfully as to appear to be his work.

My friend, F. H. Gilson, a lover of beauty in Nature and the Fine Arts, who in April, 1912, was here with me and aided me in notes and photographs, said of the University, "Some parts are exceedingly pleasing, but the more modern buildings mar the beauty of the old design."

At a Trustees' meeting, I was asked about the removal of a Jefferson period building near the Rotunda and replacing it with a more modern structure. I objected strenuously, and urged the reconditions of the old building. One of the Trustees, who said he was a direct descendent of Mr. Jefferson, would have the removal made. They gave me the privilege of calling in a group of eminent architects to pass upon this problem. Mr. J. Randolph Coolidge, a direct descendant of Mr. Jefferson and an architect of distinction, Mr. Lester M. Bacon the designer of the Lincoln Memorial at Washington, and Mr. Charles Platt—all eminent architects—came there and approved my contention that there should be no departure from the Jeffersonian type of design for this court. After this, I was not continued as an adviser to the University.

Doctor Lambeth, in our book, on page 38, says "It was an ambition of Jefferson also to construct his University out of native material." He found that native mica schist "unsusceptible of delicate work." These capitols which he endeavored to cut from native stone, in various stages of completion, were placed in the new gardens of the East Range. Doctor Lambeth and I found these capitols covered with chips and dirt in the cellar of an East Range building.

During the period when Mr. F. H. Gilson and I were tramping the Reading,

Mass., woods, he published, in 1888, a twelve-page booklet—Trees of Reading, Mass., with eight by ten pictures, descriptions, and history of five of the finest trees of the town.

In April 1912, we met at Charlottesville, Va., where I was making a study for the extension of the University of Virginia. After his aid on photographs, and notes, we went by rail to Lynchburg, Virginia, drove to Abington where we took the one passenger and baggage car—with all sorts of people and smells—at the tail of a freight. We passed limestone cliffs, rolling fields, over a high, wood trestle, and into a shale rock valley to Damascus, Va. Here Mr. and Mrs. C. A. Backer took us to their attractive home. He owned much of the town, of about 200 buildings, and a Tanning Extract factory, where some 18,000 cords of Chestnut branches and bark, and Hemlock bark, were ground up to be distilled. He owned much forest land and the 16-mile Beaver Dam railroad. He asked me to come there to aid him in making his town more attractive. He was fortunate in having plenty of Rhododendrons, Laurel, Holly, and the like that could be readily transplanted against bare fences, buildings, and on unattractive grounds. We shipped a carload of such plants to his home in Billerica, Mass., where they are now.

I made a sketch plan of his holdings. One of his home lot boundaries was Laurel Run. Here I named an island for Natalie Scott and a cliff for Herbert Scott—two dear little people who were with me much of the time. From a nearby hill top, Mr. Backer, Mr. Gilson, and I gained a view of White Top Mountain up Laurel Run Valley where we were soon to go. Mr. Backer took us on his railroad by Southerland, Tenn., where there were beautiful natural parks of grassy fields bordered by masses of the flowering broad-leaved evergreens. Then came a steep valley with horizontal rock layer bluffs with Hemlocks and Rhododendrons thereon. Then we went through a rock tunnel about twenty feet into a 75-foot high "Backbone" wall of rock.—"The shortest tunnel in the World." From here on to Crandal, Tenn., were more of the beautiful broad-leaf evergreen

and natural turf parks.

The next day we rode upu the Railway to Konnarock, Virginia, and met Mr. L. C. Hassinger, who with his brother in 1900 had built a town to harvest the timber about it. We saw 9,000,000 feet of sawed lumber in the mill yard. The new town had three-to six-room houses, store, a Community Hall for all denominations, and organizations, and a school. Whole families had been living in one-room cabins. These was resentment against "these foreigners" and a plan to kill them off, but that has all gone by, and the community is a happy and prosperous one.

Our way to the town was through a narrow, cliff-lined valley that was wildly picturesque, and in which were the tallest Pine and Hemlock trees we had ever seen, even on cliff faces. The thickets of Rhododendrons so completely covered the ground that no soil could be seen. The Hassenger Brothers were to save as much of this primeval forest as they could afford to do, because of its unique beauty. As we climbed the mountain, we passed from the ravine through grassy fields, then through Chestnut and Sugar Maple, then through Bass, Birch, Oak, and Azaleas; then appeared Red-berried Elder, Striped-bark Maple, Hobble Bush, and Mountain Ash of the far north woods, and at the summit Lash-horn that was our Black Spruce of the north. There was an exquisite Moss cover under these trees. Near the summit were peculiar fields of coarse grass that cattle would not graze, and in which trees and shrubs had gained no foothold. The grass was nearly white when dry—hence the name White Top Mountain.

When one knows that the elevation above the sea of Konnorock is 2925 feet, and the top of the mountain 5678 feet, then the transitions from the plants of Virginia to the plants of Maine are understood. Our tramp between these two elevation points, under the guidance of Mr. Hassinger, up to the Hassinger mountain top camp, where we spend the night, was the event of this trip. The mountain is at the corner of Virginia, Tennessee, and North Carolina,

and the views are far-reaching and varied. This is a region of great scenic interest where social problems are being worked out in a fine way, that should be opened to the public in ways that will benefit the people here and give pleasure to people from elsewhere.

Mr. Gilson and I parted, he going to the Biltmore Estate, near Ashville, where I had been the aid of Mr. Frederick Law Olmsted, Sr. in designing and planting the grounds. His guide told him there were 200,000 acres extending 32 miles, with 75 miles of hard roads, about a hundred acres cultivated and large areas planted with foreign trees. I went to Akron, Ohio, from Bedford on the Norfolk and Western. We first pass limestone cliffs, higher bluffs, and higher bluffs, and higher hills that culminate at Pembroke, Va., in very slender, tall pinnacles and thin edges of rock standing in a most striking way from the face of the bluff. Then came Coaldale, W. Va., where mining operations had filled the stream with coal waste. All the way there were Redbuds, many in flower, and some Rhododendrons– especially at Panther, W. Va., near Ohio where we entered broad valleys and more cultivation.

Another trip with Mr. F.H. Gilson was to Florida, that he describes in a Trip to Florida, 1914. We went from Jacksonville to Orlando where I visited a client, Rufus R. Wilson, then to Fort Myers. Mr. Gilson says, "From here we leave the coastal flat lands where there are many tall, Long- leaf Pines, and where five-to ten-foot Saw Palmettos cover much of the ground. We then pass through the much more interesting low hills where there are many Orange groves. At Fort Myers on the Caloosahatchie River there were Royal and Coconut Palms, Rubber Trees, and many flowering shrubs."

We started up the mile-wide river on February 4, on the Suanee– a 60-ton 26-inch, draft flat-bottom, stern-wheel steamer. We passed and alligator, many pelicans, and flocks of Ducks that the town protected. The river soon narrowed to 150 feet with low, swampy banks. Here we saw Turtles, big Sucker-like fish, birds, and many Cranes. Then we passed a four-mile long Grape Fruit

grove. Then there were several miles of wild growth with Saw Palmetto dominant and Live Oak, Cypress, Prickly Pear, Cactus, and much Spanish Moss on trees. There was evidences of heavy floods. In the banks was a loose shell rock, and it is said that there are 600 different shells in this formation for collectors.

We spent the night in a hotel at Labelle, a little town, and I think we could have sworn that every two-legged bird with feathers was a crowing rooster at four in the morning.

Then came a narrower and more crooked stream as we passed a great open prairie-like area, with cattle and also one big Eagle. Then came a canal where the boat turned its stern wheel upstream to stir up the shallow bottom. In the crooks and canal, we were stuck about fifty times and broke the paddle wheel. All men on board had to take a hand in getting unstuck. Then there were four miles through Lake Hicpochee, on which were thousands of Ducks. We were held a day on Lake Okeechobee shores by west winds that made the water too shallow, then by east winds that made it too rough. As the shores were snake-infested thickets, we kept on board. There was one fine big tree to enjoy in the view. There were some two dozen passengers, fine people from Tenn., N. Y., Mass., and N. H.

We crossed the Lake, entered the New River Canal, passed thickets of bushy Pond Apples, Willows, with some cultivation on the above water land. We then entered the Everglades—a great region of thick tall Saw Grass that extended as far as the eyes could see. Mr. Roland M. Harper, in a State Report calls this the largest Saw Grass marsh in the World. We then passed through a lock and to Fort Lauderdale. We had spent four days and nights on the boat, and one night in a hotel instead of the usual three days on the boat and two nights in a hotel.

If this way is now adequately opened, it is a trip with special interest to visitors by reason of its varied scenic, wild life, shell collecting, crop and farm and small village values. It should have much more publicity.

The book "Out-of-Doors in Florida" by C. T. Simpson, has a chapter on this river, and quotes Angelo Hailprin who explored it in 1886 and said, "and the brilliant greens with which the eye never satiates, form a picture of scenic loveliness which no pen can adequately describe."

In 1911, I was asked by the Trustees of the Massachusetts Agricultural College at Amherst, Mass., now the State College, to report on the college plans as new buildings were proposed. Prof. Frank A. Waugh, the head of the Department of Landscape Gardening, with whom I had cooperated in the 1911 studies, designed in 1920, Plans for the College Grounds.

We went back to the studies of Vaux and Richards in 1864, and to the very important report and plan of Frederick Law Olmsted, Sr. in 1866, in cooperation with President French, that were modified by the Trustees, under Chairman Marshall P. Wilder. In 1871, I. A. Pilat reported on a Botanic Garden and Arboretum. From 1865 to 1902, President W. S. Clark and Prof. S. T. Maynard were responsible for most important planting, buildings, and passages on the grounds.

In 1892, Mr. George A. Parker made a study and report on the grounds. In 1906, Mr. F. I. Cooper, Architect, made a report, especially on grouping buildings. In 1908, Prof. Frank A. Waugh made a study following some of the Cooper recommendations.

In 1911, Mr. Warren H. Manning made a report and plan concerning which Prof. Waugh says, "Under the direction of Mr. Manning a great deal more time and effort was spent on these studies than ever before." The surveys were repeatedly consulted. "The idea of grouping buildings according to their uses was further elaborated and the divisions of the college lands amongst various interests was attempted. Mr. Manning's report was adopted by the Board of Trustees."

In 1920, a new survey and report was prepared by Professor Waugh. With Professor Waugh's 1920 issue are the following plans, all on a scale of 500 feet to 1 inch.

Frederick Law Olmsted 1866, reconstructed by Frank A. Waugh 1911 from Olmsted's written Report.

Grouping of Buildings. Scheme No. 2. Cooper & Bailey Architects, 1908.

Preliminary Study for Plan for The College Grounds by F. A. Waugh 1908, Accompanying a Report.

The Plan to Accompany a Report of June 1911, by Warren H. Manning.

Map of Existing Conditions 1870, to Accompany A Report of June 1911 by Warren H. Manning.

General Plan to Accompany Report of Frank A. Waugh, January 1920.

It is of interest to see that Professor Waugh's general Plan of 1920 indicates that my study of 1911 has been adhered to in all its essential features and that A Future Main Entrance Way Down to a Connecticut River Side Reservation seems to be possible.

Amusement Parks

In the 1900 to 19025 period that fine type of physical and mental manhood, Colonel C. C. Campbell, and electric railway magnate, had me aid in selecting sites and planning amusement parks out of the crowded towns in attractive landscapes to increase the paying traffic and to gain a revenue from such activities as picnic, music, dancing, playgrounds, and boating where there was water.

This followed the horsecar days, when too many of the public parks were pretty places to look at, with seats and walks, and "Keep Off the Grass" signs, and foliage and flower "bedding out" freaks, and the "cleaning up " destruction of beautiful native woodland undergrowth to make a poor grass cover.

Colonel Campbell's action, playground pleasures, opened up ways of establishing many more public playgrounds in the crowded parts of the cities, and to the preservation of more attractive natural conditions. Well do I remember when a park superintendent in a Lake Michigan city showed me his "fine new wild garden" of a few hundred native woodlands flowers that he had bought, without realizing that he had been destroying millions of like plants in "cleaning up" his woods.

In my life period, there have been the stage coaches, horse and buggy, horsecars on tracks, electric cars, automobiles, and aircraft—that may soon go over 500 miles per hour in the stratosphere all over the world. We may look forward to an excursion to the iceland wonders of the Arctics, a big game hunting trip to Africa with some summer homes there, and world-wide sightseeing and world study activities that are anticipated under the "World Planning" chapter.

May we not look forward to anti-gravity belts on which we may push buttons that will permit us to float up from the ground, out of the window from roof tops and pass in any direction we may wish to go. This will be more

wonderful than talking by radio around the world in a few seconds. We may have glasses attached to our noses and ears, through which we may see what is going on about us in the air in all directions. We, as well as the aircraft, may be made collision proof through such electric-eye action that now opens and closes a door as you approach without your touching it at all.

I have been through the period of ground and water travel to the period where I can view the landscape from planes and dirigibles. One air trip, over Birmingham, Alabama, in a Government plane, was of special interest, for I was dressed in a thick leather wool-lined suit, with a parachute strapped on my back, with instructions to step to the edge of the plane, hop off, and pull the ring if an accident should make this necessary. Similar protection forces may be developed that will compel all aircraft to keep within one of the many air levels that will be assigned to each, in which they can dodge four ways instead of only two ways for automobiles on the ground.

Air traffic may be so perfected that is vehicles will never kill some 40,000 people and injure a million or more per year as the automobile is doing in our country.

The work that I did for Colonel Campbell led to like work over a wide territory, as indicated by the following projects that I will not refer to in detail as they had much the same purposes in view.

1891 Rittersville Land Company, at Allentown, Pennsylvania, for Colonel Campbell.
1892 Richland Park, at Avon in Brockton.
1893 Belch Grove, in Haverhill, and Baker's Grove and The Pines in Lawrence for Colonel Campbell.
1894 Lake View on Lake Mascoppi, in Lowell, Mass., for P. F. Sullivan.
1898 New Orleans, La., Water Chute Company for Isadore Newman, Sr.
1900 Hazelton Park in Bradford, Mass.
1901 Mayflower Grove in Bryantville, Mass., for the Brockton and Plymouth St. Ry. Co.
1904–5 Riverhurst Park, Olean, N. Y.
1905 Naugatuck, Connecticut, Salem School Playground
1907 Rock, Olean, New York
1908 Isle Aux Peches, Detroit, Michiga, for Rello Islo and Windsor Ferry Company.

1911–13 Riverview Recreation Park, Tiffin, Ohio.
1914 Electric Railway Amusement Park, Birmingham, Alabama, for Mr. George Bullock.
1925 West End Lyric Sky Dome, St. Louis, Missouri, for Middleton Realty Company, St. Louis, Missouri.

It would be very interesting and instructive if an examination could be made of all these projects to determine their present conditions and use and gain a record of their history and of their values to the community that they were designed to serve.

In 1907, I was made Landscape Designer for the Jamestown Exposition, at Norfolk, Virginia, the 9th American Exposition. I acted with the architects, Robert S. Peabody and Stearns, J. Harleston Parker, and James H. Ritchie of Boston, and John Keevan Peebles of Norfolk, in cooperation with C. Brooks Johnston, C. S. Sherwood, T. A. Southgate, W. E. Cottrell, Lieutenant Governor J. Taylor Ellison, the Board of Governors, and General Fitz Hugh Leo, the Exposition President. Our plan was accepted April 4, 1895. I was also made chief of the Department of Education and Social Economy.

This event celebrated the first American settlement of May 5, 1607, on Jamestown Island. The site was on mostly open, nearly level land on Chesapeake Bay, opposite Cape Charles. There were tree-lined lagoons to the eastward. The dominant design factor was a water basin between two piers, 1800 feet long and 400 feet apart, at the head of which was a court with the main buildings about it. State buildings were on a shore road. There was an arts and crafts village, playgrounds, canoe trails, a Japanese village, and Philippine concession, and military camp. The buildings were taken over for a National Soldiers' Home, and not wrecked as in most other exhibitions.

The buildings were mostly of the Southern type, and planting mostly of native plants that were in place or collected from the region. There was a colored people's colony nearby, with a cemetery on the Exposition grounds that they feared would be destroyed. We had them give the names of the people

in unmarked graves, and we were able to place concrete markers, at low cost, at several hundred graves. The people were so pleased that they worked very hard and at any time on cemetery work. One rainy day, Governor Bryan and I drove by a large group of colored men working very hard on important drainage ditches. He said, "We cannot get these people to work on such days. How do you do it?" When I told him that it was an evidence of appreciation of the above action, he was much interested.

I made studies for the arrangement of the 22½ acres at Jamestown Island, owned by The Association for the Preservation of Virginia Antiquities. On one of the monument locations the Pocahontas statue of William Ordway Partridge was placed. Planting plans were also made, and a sketch plan of the road to Williamsburg and detail plans of the church cemetery and other ruins. Notes were made on the historic Jimson and other early day weeds.

Some of my plans were sent to Mrs. Joseph Bryan, J. Taylor Ellison, John G. Lightfoot, R. A. Lancaster Jr., William G. Stannard, Samuel H. Yorge, Mrs. W. C. Bentley, Greenville G. Valentine, Harry Taylor, and Henry S. Hutzler. Since then, the earth hidden features have been excavated and recorded, and new plans made in connection with the Williamstown Restoration.

Like archaeological work was done at Williamstown, after a visit there on a consulting committee of the American Society of Landscape Architects to pass upon Arthur S. Shurcliff plans. I found children had a pile of relics that they had picked up. I urged that the soil should be sifted and such material saved. Since then, many tons of material have been removed, and much placed in a museum.

At an ancient fort at Cape Porpoise, Maine, and at the Manning Manse, in North Billerica, built in 1696, many ancient military, home, farm, and early Indian items were found. This emphasized the need of archaeological research about old structures everywhere.

In Virginia, through acquaintances made at the Exposition—especially through Lieutenant Governor J. Taylor Ellison, I was called upon to plan over 60 public and private projects, of which several are referred to.

The Governor of Virginia asked for advice on the state Capitol grounds. I said that they should be left as they were, as they represented the thought of the early designers of the building, who evidently wished to have a simple, informal setting without terraces and walks.

Community Days

My school training ended in Reading Schools, with a year in General William H. Russell's Military School, in New Haven, Connecticut, and a term in French's Business College, Boston, Mass. The outstanding event in my education came when I asked my beloved teacher, Mary Stinchfield, at the graduation period, "Who writes the best composition in my class?" She said, "You do Warren." This surprise led me to vow that I would hereafter always try to excel. This shows how far the sincere words of a teacher may change the whole course of a student's life. My education has come chiefly from my contacts with Nature's wild life and scenic values in the wild, and as controlled by man, from work in my father's nursery with the advice of father and mother, my association in botanizing with my lover of Nature friend, F. H. Gilson, and then for a year in his Boston Music Printing establishment, where I prepared text for several music pamphlets and a School Music Journal. Then came several years in Frederick Law Olmsted, Sr.'s office with much travel with him, and in association with his partners, John C. Olmsted, Charles W. Eliot, and Henry S. Codman, each having distinctive capacities to aid me in gaining new points of view and ideals. An important part of my education came through contacts with clients to which reference is made herein and from Community Day activities.

My first Community Day was in 1889, in Reading, Massachusetts, when with friends with whom I had done much botanizing and other, the Elms on High Street, and a Mary Stinchfield Memorial Oak at the High School of that period at the town center were planted. These trees now run up to eighteen inches in diameter.

In North Billerica, Massachusetts, on June 23, and November 23, 1913, Community Days were held at Fordway Park, on the Concord River, to clear and plant the grounds. There were about 30 people the first day, and about 60 the second. The ladies of the town provided a lunch at noon for the workers.

On one of these days, the boy workers would not allow a lunch ticket to be given to one of their number because he had loafed. At the next day that boy was one of the best workers. This village was of special interest to me because in its outskirts was the home my ancestors built in 1696, which was still standing but nearly in ruins. It was placed with trustees by Lucinda Manning—the income to be used for teaching the Orthodox faith in this district. I was able to restore it to its original condition, acquire a large amount of land about it, establish a large office building on this land, and take a part in the planning of the town.

North Billerica was a typical manufacturing village town with shops, churches, post office, and a woolen weaving mill about 100 years old, and large railroad repair shops. Here were many people who had come, or many of whose people had come, from over the sea in recent years. Billerica Center, a hilltop village, with its shops, town office, bank, and memorial library, had been occupied since the middle of the 17th century. Here most of the people were descendants of the early New Englanders. There is no large industry here.

Several miles from this center was the recently developed region of Pinehurst on the Shawsheen River that started with summer shacks built by people who wanted to get out of the city for their health and with their children. In a few years, these shacks were made good homes, and the district had come to be an important section of the town with its church, stores, post office, and schools. There were other outlying villages and groups of homes, farming areas, and many camps along the Concord River.

Much of the town had been divided into small house lots by real estate speculators. There was, however, a desire on the part of many people to add to the attractiveness of the town by establishing public reservations; and about 300 acres of land were given by owners, including one area of 75 acres for public reservations, largely through my personal solicitation I am

satisfied that I could have secured a thousand acres to form parts of a connected system of reservations through much of the town if it had been practicable for me to give the time to it. These reservations on Gilson Hill are now included in a State Forest, as well as land about the Manning Manse. Similar results could be gained in nearly every town if the right type of leadership was present therein. Community Day activities do tend to develop such leadership.

Through a town appropriation, lands thus given to the town, that were to be included in the State Forest and elsewhere, were marked with deep letters onto ledges or boulders to record the names of the donors or friends for whom they stand as a memorial, before they were merged into the State Forest holdings. All gifts of land to a Community should be so marked or recorded that they will always stand as a memorial to the donor. Such land gifts will be much more permanent than the stone markers in many burial places; and the public will always gain pleasure, education, and inspiration from most of such land holdings.

In North Billerica, on April 29, 1916; May 12, 1917; May 25, 1918; Community Days were held on the Kolrausch Memorial Playground that had been given to the town by Mrs. Charles H. Kolrausch as a Memorial to her husband who had been an outstanding citizen and town official. There were several hundred people on each of these Community Days. Nearly all were from North Billerica, with a few from the town center. Much of the land was swampy and had to be filled in and drained. There was considerable planting done along the boundaries with plant material contributed by the town people. The grounds were large enough to provide for a ball field with a grandstand, tennis courts, little children's playground, and a picnic grove in pine woods. It has been a principal playground since it was constructed.

Evidence of this is given by the Kolrausch Playground at North Billerica for which the ground was given by Mrs. Charles H. Kolrausch as a memorial to her husband, who had been a town officer for many years and was so highly respected by the towns people that they were eager to take part in Community Days in several consecutive years to develop the area by drainage, grading and planting for a Baseball field, Children's Playground, Picnic Grounds and Tennis Courts. There were several hundred people on each day, including many children.

The community spirit among the children was indicated on the first day when they came for lunch tickets. As one boy approached the other children yelled, "Don't give a ticket to him, he hasn't worked." The next year this boy was one of the best workers of the gang.

A leader in this movement was Frederick W. Clark, the head of the Talbot Mills, a woolen weaving factory at the falls on the Concord River in North Billerica. This company held many houses and much land in this village and surroundings of public buildings and mill structures and especially in aiding their employees in making their home lots more attractive and productive from flower and kitchen gardens. In 1907 the company printed, for distribution to its people "A Handbook for Planning and Planting Home Grounds" of 7 4 pages in which was described suitable plants and their special values and plants that had special interest at the Talbot Memorial Hall and other early plantations in home grounds. A special collection of plants was established on an oval in the center of a main street here that is now in tall thickets. I often question my wisdom in planting other than low plants that could be looked over from the straight parts of the road. As there have not been accidents it would appear that a screen in the road has led people to be so watchful in passing around it as to make for safety. In the center of the area is turf and the tall village flag pole.

In Steelton, Pennsylvania, in the spring and fall of 1915, a full days work was done by some 350 people on Kelker Memorial Park. They collected and burned rubbish, made 1000 feet of 5-foot paths, and trimmed trees. The steel mill and town officials worked with the foreign laborers—the high and grammar school boys with the school officials. A baby in its mother's arms was given a stick to drop into the fire; and his name was in the newspaper as one of the workers. One of the leading ladies of the town asked me if I was going to ask people from "that street," that was occupied chiefly by foreign laborers, to participate in the Community Days. I went there and found two people sitting at a fence. One was a smiling Italian who understood but little English; and the other had the face of a brigand, with pointed nose and chin, big mouth, heavy eyebrows, piercing eyes, and bushy hair. I told them of the Community Say, and they said they would get their people there. Then the brigand said with a smiling face, "You have no idea how much beauty we have here, and how much pleasure we gain from this big hill slope forest, on which there are so many birds and flowers and nice views. We really pity the people in the big houses up on the hill where there are no trees." The children from "that Street" were among the best of the workers.

Plans were made in this town for the improvement of steel mill grounds, schools, and homes, and homes of leading citizens.

There were Community Days on February 5, and 22, 1916, at the Farm Life School, at Excelsior, North Carolina, with about 250 workers who cleared two acres of stumpy land, built several hundred feet of road, and planted several thousand contributed plants. Here, working and eating together, were the native "tar heels" and their children, county officials, northern men and women of wealth and distinction from nearby Pinehurst winter resort. The Pinehurst people came in their cars to see the show; but they became so much interested that with their good clothes, joined the people with old clothes in the work and the "eats."

At Pinehurst, I was in charge of developing the plan of the town for many years after the first plan was made in the office of Mr. Frederick Law Olmsted, during my period there. As I had done most of the work on the grounds, Mr. James W. Tufts had me continue it when I established my own office. Mr. Tufts had bought his first thousand acres of cut-over land for $1 per acre. One of the local magnates said he was cheated, that he should not have paid more than 75 cents per acre. The land was mostly cut over, with stumps and many fallen trees, much brush, but with very attractive native flowering shrubs and trees in the wet valleys.

Reservations in and about the town and on the streams, main thoroughfares, trunk line roads to adjacent towns, a section on which the new Pine Needles Inn with is golf course was built, were a part of the planning. At an early period, Mr. James W. Tufts had me bring together a large collection of exotic plants to be tried out in plantations. Many of these plants have developed into fine specimens that give Pinehurst special arborial distinction. During this period I cooperated with Mr. Donald Ross in the locating of the several golf courses there.

In the Red Cross Magazine of September 1919, Walter Prichard Eaton writes about and vividly illustrated the Community Day of April 10, 1919, in Reading, Massachusetts, where he had lived and that was my birthplace and early home town.

Here work was done on a eleven-acre tract, with an old barn, that was given to the town as a memorial to the Temple family. There was no town money available for work thereon, so I recommended a Community Day to a committee that it took me half a day to convince of its possibility. One member said he would not make a fool of himself by working in overalls like a <ILLEGIBLE WORD, “dame?”>. He changed his mind, however; and he was one of the best workers in overalls—it was Hon. John J. Rogers, the Congressional Representative of the district.

The ladies were dominant in advancing the projects. With the aid of the Boy and Girl Scouts and others, circulars were distributed to all homes.

<MISSING SECTION?> and nearly $1000. was collected to cover the cost of the lunch for 2500 people. The lunch was prepared and served by the ladies in a tent loaned by a local circus man who also gave an entertainment at the end of the day. There were close to 5000 people on the grounds—a half of the town population—with about 2500 people at work with forty teams. About a hundred mechanics worked to repair the old barn, basement, and first floor, and added a stage, to make it ready for indoor recreation.

On the grounds were fourteen directors for different types of work; such as grading, dumps, now gravel piles, and slopes; filling holes, making paths, preparing beds for planting several thousand plants that were contributed. Memorial trees were planted for victims of the World War, and a memorial boulder was placed. On June 17th, many came to finish the work. It was estimated that it would cost about $10,000 to accomplish the work done on these days in the usual ways. As Mr. Eaton says, "This work has a peculiar fascination of its own, as well as an enormous educational values. Everybody in Reading agreed that it was great fun."

My principal work as a Professional Advisor to this town, at a later period, was the proposition of a zoning plan that was adopted and has served its purpose well.

At Calumet, Michigan, the Calumet and Hecla Copper Company was establishing a memorial park with a monument to Alexander Agassiz. As the Company activities were so paternal, I urged a Community Day to make it a people's park. Mr. James McNaughton, the Calumet and Uccla Manager, said, "Go ahead."

June 2, 1922 was made a holiday. The day was organized with the aid of the Calumet and Hecla people as citizens, the Chamber of Commerce, churches, organizations, many townspeople, and especially the school children, working under the direction of Miss Helen Bullard of my office. It was estimated that there were 12,000 people present. The work went on all the forenoon and much of the afternoon—on walks, playgrounds, and beds for plants, that were coming

from home grounds and from some nursery rows all day long. At noon there was a picnic lunch; and in the late afternoon were games, music, and ice cream for the children contributed by local dealers. Plant exchanges between the park and homes have been made for most of the time since then.

As there were many plants left over, I told the Superintendent of Schools that we wanted the children to make plans of their home grounds so that we could distribute the plants. He thought this impossible, as they had no engineering course; but said we could try it out with the aid of Mrs. Sherman, the art teacher, and Miss Bullard. They secured over 700 home grounds plans on a uniform scale of 20 feet to the inch, and a number of birdseye pictures of homes and grounds showing structures and plantations on the grounds, and often places for new plantations. About 8,000 plants were distributed to the pupils for home ground planting.

The schools had given a Music Memory Contest entertainment with publicity from Students' pictures in store windows showing in color stately ladies with harps, darky banjo players, birds at desks and in trees playing musical instruments, et cetera. I captured these and selected home ground maps, about 60 items in all, and asked the Harvard College Weidner Librarian to select from them. He said, "I want them all." Later, he told me they were in the Treasure Room from which material could not be withdrawn; but he did lend some to me. There were 15 nationalities represented in that town.

Another Community activity here was the removal, largely by the home families, of front, side, and backyard fences that were usually unpainted and dilapidated. They were a relic of the days when cows grazed in roads and open lots. The Calumet and Hecla Company doubted if the people would be willing to open up their lots in this way; but most of them did with much enthusiasm. When the fences on the main street were taken out, Japanese Barberry hedgerows were planted the full length, giving this street added distinction.

<HANDWRITTEN SECTION, MOSTLY ILLEGIBLE>
Munsing – Longfellow's <ILLEGIBLE WORD> for "Hiawatha"
Society of Jesus – formerly Kundart's home - <ILLEGIBLE WORD>
Charles Ransdell continued W.H.M. work at Minneapolis
A mountain named for W.H.M. in Arizona, which State he most fascinating by reason of its varied lay of the land and vivid coloring
Harrisburg one of most important in career, 4 Parks, 20 Playgrounds, 23 miles of Riverside Parks and Parkways, W.H.M. was guest of honor at a dinner given him by leading citizens in appreciation of the work done for the city, on the plans for roads leading to the Capitol. Regraded and planted Riverfront. W.H.M. very enthusiastic about Harrisburg, PA.
Stewart Memorial Park, Ithaca, N.Y.
In 1912 replanned the burned out center of the city in Bangor, Maine.
1912-1917 Planned Goodyear Heights in Akron, Ohio, 236 Plans.
Youngstown, Ohio, W.H.M. did considerable work for Youngstown pioneer Manning's stemmed from the Manning Manse at Billerica, Mass. For a memorial at Youngstown for World War soldiers, boulders were secured by W.H.M from the sites of the Revolutionary battles of Concord, Concord River Bridge, and Lexington. From the Hancock Clark House in Lexington where John Hancock and Sam Adams were when they heard the British were coming and also from a house in Billerica where they went before the British reached Concord, and a <ILLEGIBLE WORD> place the Manning Manse. The lettering on the big boulder was done in Concord <ILLEGIBLE WORD> Henry Manning Garlick of Youngstown, a former President of the Manning Association. A great deal of work on Lookout Mountain as Chattangooga, Tennessee – Fairyland Subdivision – Golf Course – numerous estates.
W.H.M. explored every island in Boston Harbor and listed all the plants thereon. His father Jacob planted the trees on Georges Island in 1849 along Fort Warren.

Most of the people had flower gardens and many had vegetable gardens in their backyards, in which all the garden produce, excepting corn and potatoes, that a family of four required could be produced at an average of the hours labor per day. Some growers told me that they raised two to three crops in a season of beans and peas. The potato and corn fields were in large areas well out of the town that were plowed and fertilized by the Company, with plots set aside for employees to plant, cultivate and harvest their crops.

Reading, Mass., my birthplace, I have referred to near the beginning of this work. It is a typical New England town with the public buildings, much of the business, and the cemetery at the center, and with the outlying villages, that were in the early days farming regions, connected with the center by gradual development of homes or other buildings.

In some of these outlying villages were early-day industries; such as saw mills, shoe and furniture factories, some of which have been abandoned, and others increased to support some of the people. A few industries have come in, in recent years. The town is, however, dominantly residential for the people whose occupations are in the Boston region, it being twelve miles therefrom by railroad and highway.

Through the activities of an Improvement Society, in which I was active, High Street was planted with Elms. I was later asked to advise with reference to the placing of a new Town Hall and a Library, and they were placed at the side of the Common. Then came the problem of improving a piece of land, about ten acres, that was given to the town as a Memorial Park. As there was no town money available for the improvement I proposed a Community Day in which the people would come in their old clothes with tools at nine, work until noon and have an entertainment in the afternoon. The men considered it impracticable but the ladies thought otherwise: There were about 5000 people on the land of which 2000 were workers. At noon a lunch was provided

for 2500 people. There were about 200 men at the old barn, that they were going to pull down, but when they found they had no money for a park Community House, they decided to repair this building. Many workers came at a later period to finish this job. This building with its store and adjoining children's playground has been most serviceable. The people worked in preparing border plantations, walks on some gardening, and in putting in place the thousands of plants that were being brought in as contributions from home grounds. In all this work the children were very helpful. A conservative estimate of the value of material supplied and the work done on this day was $10,000.

On March 23, 1923, there was a Community day at Sunset Park, in Lookout Mountain that included the high ridge with its fine outlooks, at Chattanooga Tennessee. There were about 100 people present; and the fine native shrub and tree growth on the park was thinned to open up framed in views and vistas. There were bare banks that were covered with plants contributed by the people. There was a public park and many fine homes on this mountain, and I was asked to give advice with reference to the development of about 14 of these homes.

The Garden Club there arranged to have the town park planted. One of the most important places that I had to do with was that of Mr. Henry H. Lesley, in which there were fine rhododendron plantations about the house and attractive ground covers on the steep slopes under trees down at the edge of the bluff.

Plans were also made for the Fairyland Peal Estate Subdivision on the slope of the mountain toward the city; and these plans were carried out and many houses were built thereon. The steep bluffs of the property were set aside as public reservations to continue the bluff holdings that Mr. Adolph Ochs was securing around much of the mountain ridge as a public reservation. Such a reservation will be a fine memorial to him in his home town.

Mr. Ochs, as editor of the New York times, asked me for an article on the future of New York and on Regional Planning that he published November 20, 1931, with an editorial on the following day giving credit to my article.

My brief interviews with Mr. Ochs, and my association with Mr. Purchard, his assistant, were very broadening to my field of thought and action.

Plans were made for a civic center in Chattanooga not far from the business center that I believe were never fully executed. There was also a birdseye study made of Missionary Ridge on the opposite side of the city from Lookout Mountain. A study was also made and recommendations given to the McCallis School.

I regard the park development of Harrisburg as one of the most important of all my projects. My work began chiefly through the activities of the Harrisburg Improvement Society, of which Miss Myra Lloyd Dock was the most active promoter, and Mayor Vance McCormick a leader. We all had the advice and inspiration from Mr. J. Horace McFarland. Mr. <BLANKED OUT> was called in to prepare the plans for sewage disposal, and Mr. <BLANKED OUT> for street improvements. At that time, the river bank was a public dump. Mr. <BLANKED OUT> located the city intersection sewer at the bottom of the bluff with a wide concrete walk over it and with steps leading into the water, along much of the city frontage.

My plan was to prepare plans for parks, parkway extensions, and river front improvements. As they only had about $250,000. for parks, it was necessary for them to secure most of the land for their parkways as a gift from the owner. The chairman of the commission said, “You do not know Pennsylvania Dutch. They do not give land.” But, he—the Dutchman—did give about 25 acres of valuable land to increase the area of the hill top Reservoir Park given by Senator James Cameron, who gave 60 acres out of 600. People along the river front who owned shores the width of their lots, mostly from 30 to 50 feet across the bluff top Front Street, were ready to give their land for the benefit of the city. Most of the parkways and riverfront were thus secured.

Few people realize how notably attractive Harrisburg is with its distant views up and down the Susquehanna River from the Summit Reservoir Park, its

naturalistic wooded slopes and valleys, with water areas in Wildwood Park, where a most interesting zoo is established, and also the fine views from the riverfronts to the towns and highlands across the river, and especially to the Susquehanna River Pass through the high mountain ranges to the northward. The city is now establishing, in part through contributions from citizens and also from school children, a notable Rose Garden on the grounds of the Polyclinic Hospital to which reference is made above. This work is being done by the Department of Parks and Public Grounds, of which Mr. Calvin Frank is Director, with the advice of Mr. J. Horace McFarland, Mr. R. Marion Hatton—who are officers of the Rose Society of America—and Mr. Daniel J. Foley, of Mr. McFarland's office.

With its water mirror pool, with the Donato fountain that was contributed by Mr. Hershey, of Hershey, Pennsylvania, to the city several years ago, the beds of selected Hybrid Tea Roses, the plantations of Old Fashioned Roses, and the species of Roses, the turf plaza for occasional audiences, and the broad paths, it will be one of the most serviceable and attractive gardens in the world.

Action is also being taken toward making Harrisburg the most beautiful floral city in the world by giving each street some special floral distinction for each period of the year. Already the children of the school, the Boy and Girl Scout, and 4 H. Clubs, have gained the reaction of citizens all over the city with reference to this project.

It is expected that a very large amount of material will be grown in the city home grounds to supplement plants from the Parks. A start was made by having the little 8 year old son of Mayor Holl make a Myrtle plantation in his backyard from which the increase would be taken for use in giving the city special beauty.

At Lynchburg, Virginia, A Community Day was held on March 23, 1889, for planting a picturesque ravine unit of the Halling Mill Road. There were about

1500 present on a showery day. When the plant contributions from gardens were divided, there were 50,000 plants. A lady wanted a memorial plantation for her mother, so Rhododendrons were secured to be added to a shaded slope on which were Mountain Laurels.

Another Wisteria Plantation in the soil pockets of a large roadside lodge was made by the teachers of the Randolph Macon College as a memorial for one of their group who had been sketching these flowers just before she passed on. These two memorial plantations required little maintenance; and I am told they have been giving great beauty on this road.

At Lynchburg, advice was given to the Randolph Macon Women's College with reference to future arrangement of buildings and planting.

Another far-reaching Community Day activity was brought about by Mrs. George Summer Bird, of Walpole, Massachusetts, who honored Washington's Tercentenary Birthday period by a more substantial means than ordinary celebrations. She called a meeting and asked that children be requested to write the story of their town now and 100 years from now. I suggested that they be asked to make plans which was also accepted; and a Game Plan was made by a committee of the B.S.L.A., of which I was chairman, and distributed through the schools, mostly in one country. There were over 700 plans, models, sketches, and pictorial recommendations sent in.

The children of one church in Dedham made a complete relief map of their whole town, showing the wooded and open land areas, buildings, roads, et cetera, with a flat line drawing with illustrations as to the future development of the town. As the Game Plan went out to the children before their teachers had time to gain sufficient knowledge to direct the children to do it some special way, the returns all represented the unbiased action of the ones who prepared them. This was an example of the fine work that can be done by children. One boy had complete plans as could be expected from the best planning offices, including intercommunication and land use studies.

Another boy had a building nearly two miles high with rocket ships, a comet, and several planets. He also said it is a matter of interest to go and see the region where the city of Boston had been. He said there was only one of the old type buildings in the community—a so-called classic recreational house with ground field for games.

CEMETERIES

The early day amusement parks and other recreation places offered many forms of physical and mental activities but with less appeal to visual, oral and mental faculties than are now offered in public resorts, offices, schools, and homes by the phone, radio and moving pictures which television pictures may soon be added.

From the days when we, the elders, could only drive a few miles an hour with the horse we have come to a mile a minute speed.

Changes have also come in our last resting places and in the memorials that an increasing number of people are establishing for community welfare as they are coming more and more to feel that their best Heaven is here on Earth in helping the people of today and tomorrow to finer living ways and environments.

The rulers who could use thousands of slaves to build great memorial pyramids with hidden burial places that they believed would never be disturbed would be unhappy if he could see his body and accompanying treasures dug out by the interlecutality of today and displayed in museums to amuse the multitude in conjunction with the buried treasures from earth and cave burials of other days.

The spoils from today's graves for the future spoilers of graves will be limited to a few personal ornaments, skeletons, fabrics, and metal caskets.

Our people up to within a few years have filled private and public cemeteries with a varied jumble of above the surface monuments with many lots surrounded by fences, curbs of stone of banks, to set them apart from others and with plant thickets. In recent years many fences and other obstructions to creditable maintenance have been removed, and the burial grounds are much more attractive than they were, where there are adequate funds to bring this about.

Now has come the "Memorial Park" burial ground in which there are no monuments appearing above the surface and with border planting that gives a park like character.

In the Regional and Town planning that will be referred to later a place will be found and protected by zoning, or otherwise, for burial grounds of the two types and for memorial land holdings that will come to the governmental and other agencies that can hold such lands and carry out the intent of the donor, if there be funds for this, for all time. Even without maintenance funds there are distinctive land units that will grow in beauty if it be necessary to depend upon Mother Nature for its care. You who have seen the ruins of the mighty Roman emperor's monuments on the Appian way will realize how the attractiveness of the region is dependent on the trees that have come in naturally.

In 1890 advice was given on the cemetery at Hopedale, Mass. and for the grading about the tomb of J. B. Bancroft there. This hill slope area with a good tree growth, especially of tall evergreens at its lower edge was an important and attractive scenic element in the view across the open Mill River valley from the town and the mills therein. Some advice was given with reference to additional screen planting in this view and along the entrance road and with reference to modifications of paths to give better access to lots.

From 1896 to 1898 Bayside Cemetery at Potsdam, N. Y. was studied with the aid of E. A. Josslyn and Miss Clarkson there. There were plans made for an entrance gate and lodge location and grading, for modifications in roads and for planting.

In 1896 planting plans were made for the J. J. Albright burial lot, in Buffalo, N. Y.

From 1896 to 1915 work was done in Laurel Hill Cemetery Reading, Mass. Plans were made for the entrance in 1896 and a survey was made of the northwesterly corner and lots were located thereon. There was also a plan made of the whole property. There was also a plan in 1915 for lots around Indian Mound and Pine Hill. This cemetery began with the town, has fine tree growth and has been well maintained.

Mr. Galen A. Parker was the one who was most helpful in this period. As most of my school days were in the school at the entrance, as I was in this cemetery much of the time as a boy and as my parents and my wife are buried there and as I expect to be, it is a place of special interest to me.

In 1897–99 Randolph Cemetery, of Randolph Vt. was planned for Col. Robert J. Kimball, Judge Rowell and H. W. McIntire. A survey was made, indicated lots already sold and new lots also for grading and tree planting. It was on irregular ground with attractive views from its uplands.

In 1897–99 Rose Hill Cemetery Hagerstown Md. of which Chas. E. Bechtel was Secretary-Treasurer. Here was an old cemetery to which an addition was to be made. Plans were made for the location and grades of roads, a reservation for the Confederate dead, new lots were located and studies made for planting. This cemetery was an important factor in the plan of the town. There were fine old trees here.

In 1898 Naugatuck Cemetery, Naugatuck Ct. A planting plan was made for Mr. J. H. Whittemore as a factor in making his town one of the most attractive in the state.

In 1899, Pitcairn Cemetery Huntington Valley Pa. A sketch of the grounds was made for Mr. Robert Glenn and some suggestions offered.

In 1901, Bellefontaine Cemetery, Henry Clay Pierce Mausoleum. A plan for an irrigation scheme and for planting was made for this Mausoleum grounds. Pierce Memorial Cemetery St. Lawrence, N. Y. At this period examinations and plans were made by J. Woodward Manning. They included boundaries of lots, sketch of gates, detail of boundary well, plan and elevation of receiving tomb, plans of the entrance gate and posts and a planting plan.

In 1902–5 Negaunee Cemetery, Negaunee, Mich. surveys and plans were made and new lots located.

In 1909 Prospect Hill Cemetery of Harrisburg, Pa. an early day one with a wooden entrance building at the end of Market St. was added to an studies were made for lots on the new section and for boundary roads that were an extension of Parkways and main thoroughfares that came through or formed the boundary of Reservoir Park and the Belleview Park housing development, of Miller Bros. that we designed. This holding was in an important position with reference to the design of this part of the city.

In 1906–9. A. J. Dull Mausoleum, now on the Westerly bluff of the Harrisburg, Pa., Cemetery above the public park, was located and all detail plans for the structure were made and checked up with Mr. A. L. Dull more thoroughly with reference to design and all details than had ever been done before. It was an inspiration and revelation to me. We made surveys and plans for the lot and location and we had Mr. Hugher Elliott make the design, and checked up on detail plans of granite and bronze made by Westerly Granite Co., Colwell Granite Co., and McGann Co. There were full size drawings of the details. We have records of 63 drawings of which many prints were distributed.

In 1908–13 Milford Mass (Pine Grove) Cemetery work was undertaken for Mr. F. J. Dutcher of Hopedale as he had interests here. Maps were made of the old and new grounds showing roads and lots and the stone monuments. A planting plan was also made about the pond.

In 1909–25. During this period much work was done at Youngstown O. For Oak Hill Cemetery under the direction of Henry M. Garlick and Mr. George E. Huggins. Sketches were made for Entrance Gate, office and residence and office buildings and a memorial chapel crypt, with the aid of Adden and Parker, Architects of Boston and Egbert Hand. There were also plans for Rhododendron and other planting along the entrance road on steep slopes, where Plaintain Lily was used as a grounds cover and along boundaries and elsewhere, for the 19

<MISSING SECTION?>

For Todd Homestead Cemetery. A topographical survey was made of the Todd farm and the cemetery for Mr. George Todd. Plans were then made for the Broad St. entrance and buildings for the arrangement of roads, lots, and planting, memorial lots, a Potters Field and a Jewish Cemetery and a 100 ft. reservation on the South boundary. All this was done under the direction of Mr. Volney Rogers whose notable work for the development of Youngstown city play and especially for its Mill Creek and other parks has been recognized by the erection of his statue at the entrance to Mill Creek, for which funds were contributed by the children of the city. My association with Mr. Rogers was one of the most inspiring events of my life by reason of his broad vision and never give up ways.

There was and old and neglected cemetery on the Road of Remembrance that he designed from Lake Erie to the Ohio River through Youngstown. This cemetery had a special interest by reason of the large patches of ground cover plants such as Moneywork, Periwinkle and Moss Pink that had spread to such an extent as to make it obvious that they could be depended upon to replace grass, with much less expense for maintenance.

In the 1907 period in Olean N. Y. all the monuments and burials were removed to another cemetery from an old one in the heart of the village and it was made a small park. This had been done elsewhere, to a limited extent. This may be the solution of many of the neglected cemetery units, where the people who are interested have all passed on. An organization to accomplish such results should be considered.

In 1917–17 Exeter Cemetery, Exeter, N. H. Was surveyed with the additions thereto at the request of Mr. Ambrose Swasey whose lots herein were given special study with plans for foundations and monuments thereon. Henry Bacon, Architect aided in this study. There were also plans for paths and lots on the new addition to the cemetery.

In 1915 the Presbyterian Cemetery of Lynchburg, Va. had plans made

for additions thereto. Robert Tait was interested in this.

In 1919 Fox Hill Cemetery of Billerica Mass. was surveyed and plans made for the roads, paths and lots in a large undeveloped section.

In 1921 in Graceland Cemetery, Chicago Ill. the Cyrus H. McCormick family lot was surveyed and planned for the burial places. A great boulder was selected and shipped from Mr. McCormick's Summer Camp grounds near Champion Mich. and placed on this lot. There was also planting done here.

In 1934 Pine Hill Cemetery, Tewksbury Mass. was studied at the request of Dr. A. Warren Stearns. This is for burials from such public institutions as the Tewksbury State Alms House. It is an attractive place with various types of upland and wetland forest, and open lands that were in part an Indian village, as indicated by relics found. As there will be few monuments here the natural beauty will be retained.

A part of the area is much used for picnics and may be continued for this use in a Pine forest with a spring.

Cemeteries with many monuments are not places for joyous recreation.

Their interest is for those having family, historic, artistic interest in the objects therein. When filled with trees they add to the landscape beauty of their region as do the Parks and Parkways, that they may be identified with through public pleasure ways along their boundaries.

Places should be found in some of the free of taxes Cemetery and Church grounds for "Totlots" for mothers and babies and little children playgrounds, where there are not such places a quarter of a mile apart that is considered best. Public school grounds should also be open all year, and where the right leadership can be secured there should be back yard areas for such uses, always with toilet facilities when possible. Such places are needed to check the killing of little children in the streets. The older people can usually find play places readily.

With increasing spare time people need more attractive places to go where

there are equipped picnic places. There should be motor ways, ways for horse drawn vehicles and equestrians, bikers and hikers from which motors would be excluded. Also landings for small safe taxi airplanes, and water areas for boating ways.

From a third to a half of our lands will be in public or semi-public holdings on which there will be game, fruit and floral beauty controls, toward costs and to give a return to such farmers and other land owners as will combine their lands to make hunting areas to supplement the public holdings, with their game supply sanctuaries.

On such holdings people can gain inspiration, education and re-creation in the above activities that would include all forms of Summer and Winter lands and water sports. There would be exploring for Indian and other historic sites, and in studying and collecting soils, rocks, water, air, plants, butterflies, bugs, birds, animals, fish, snakes, etc. etc. Reference has already been made to food values to be gained from recreational activities.

The time should come when many of our people will secure data on and give their advice on the land planning of the region they know well as a part of their recreation, education and inspiration. This should include the young people, the future citizens, many of whom have such training in Boy Scout and like activities.

Lands for future public holdings and use will come more and more as gifts from land owners who will realize that they may thus add values to their remaining holdings. They can give strips for travel ways in valleys, along shores, in swamps that may become lakes, along ridges and of ledgy and rocky lands that can not be cultivated.

Other gifts of land and funds will be made to stand for all time on a memorial to the donor or a friend. Such gifts, even if left to Mother Nature for care will grow in beauty.

Such public welfare service for the people we are living with today and of the future is coming to be more and more the religion of today.

We must also realize that the immense debts that have been incurred by national state and local agencies will make it impracticable to do much expensive planning and land acquirement through bond issues. Lands for public use and their maintenance must come more and more in such ways as are indicated above and a pay-as-you-go governmental policy.

Little do we realize how much of this country's land is wild or little used. In driving through Rhode Island, our most densely settled state on is amazed at the amount of wild land. Mr. Haskin of Washington shows that each one of the 2,000,000,000 people of the world could have 3700 square feet in the 264,896 acres of Texas.

Chapter XII. THE PAST TWO YEARS, THE PRESENT, THE FUTURE

ROADSIDE, FIELD, WILD GARDEN PLANTING

Much attention is now being given to roadside planting in many states by the Landscape advisors of Highway Departments and by Garden Clubs. Where there is a fine roadside growth of native trees, shrubs, and herbs, they can be so developed by thinning or transplanting in sods, that the low growing varieties will occupy a third or more of the planting strip, wherein there may be a trail. Low planting is desirable here and on curves to keep the view of the road open.

Such natives as the low Roses, Blueberries, Huckleberries, Sweet Fern, Bearberry, Cranberry, and New Jersey Tee can be transplanted from the wild with good sods of earth to poor soil slopes in the place of grass which has to be cut or it becomes a fire menace when dry.

Back of this can be the medium height half-high and high Blueberries, dwarf Cherries, Plums, Shad Bush. Against the boundary may be the tall Shadbush, Plums, Redbud, Flowering Dogwoods, Viburnums, and like natives. In places where there is no nearby available native growth along farms or suburban areas such low shrubs as dwarf Deutzis and Spiraeas, Adams Needle, and the plants that have escaped from the gardens to the wild may be used; such as the Tawny Day Lily, Goutweed, Beverly Broom can come in the first row. In dense shade use Periwinkle and Bigleaf Periwinkle, the small-leaved English Ivy, Yellowroot, Pink and White Yarrow, Tansy, Siberian Iris; and for wet places the Japanese and the Gladwin Iris.

In the second row the Japanese Barberry, Jetbead, Scotch Broom, Matrimony Vine, Roses, Evergreen Creeper, Plantain Lily, Trailing Junipers; and against the boundary the common Lilac, Privets, English Hawthorne, Forsythia, Syringas, Cranberry Bush, and Tamarisks.

In the South there may be Hibiscus, Grape Myrtle, Oleander, the Bougainvillea, and Passion Flower. Plants should be selected to give attractive spring, summer, and fall flower, foliage, fruit, or evergreen foliage, or

colored twigs for Winter—such varieties that will maintain themselves with little or no care in ordinary or poor soils.

On steep, high slopes of the North, such trailers as the Max Grad, Wichuriana, and Dorothy Perkins Roses, Trumpet and Matrimony Vines, Virginia Creeper, the American and Japanese Bittersweets, and especially the Japanese Evergreen or Hull's Honeysuckle can be used. Most of the plants will grow on poor soil.

It is usually desirable to have street tree planting set far enough apart so that the trees will not crowd each other, either in regular rows or in irregular spacing and grouping along the streets. Such trees as Horse Chestnut, Ohio Buckeye, Tulip Tree, Cucumber Tree, and Catalpas have attractive flowers. In California there is the Pepper Tree with its summer flowers and winter fruit, the Palms with their foliage of the tropics, and many other trees, shrubs, and views there and in the Southlands—as well as herbaceous plants that may give special seasonal distinction.

There may be streets of Magnolia, Lilac, Apple, Peach, Oleander, Crape Myrtle, Wisteria, Bougainvillea, Azalea, Rhododendron, Cactus, Passion Flower, Pawony, Petunia, and many other floral streets. It should also be recognized that such flowering small trees as the flowering Crabs, Redbud, flowering Dogwood, and even the tall Syringas and White Lilac, Crape Myrtle and Oleander can be trained with stems high enough to permit the passage of people and automobiles. They should be used more as street trees.

There should be five miles of the most distinctive flower, foliage, or fruit plants along a street when practicable, because one passed a mile of planting in about two minutes. With five miles there would be ten minutes to really appreciate such flower effects. There are some orchard districts where one may pass for five miles through flowers.

An editorial in the Christian Science Monitor refers to the beauty of the wayside and field flowers that are looked upon as weeds, largely because they are not cultivated in gardens. There is a Weed Club in Pasadena, Cali-

fornia that recognizes the beauty of such plants.

In the arid western states, with less than ten inches of rain per year, there is little tree growth; but after a brief period of rain there are wonderfully brilliant and varied carpets of flowers that cover many, many acres for a brief period. So brilliant are these displans that many people are making trips from distances to see such Nature flower gardens that require no care.

Much more attention should be given to the development of floral beauty in meadows and open fields by introducing new native plants therein that will take care of themselves or by deliberately introducing certain types of weeds where conditions justify this. Much of the floral beauty of our eastern fields and roadsides has come from plants of weeds that have escaped from cultivation and that have come from plant immigrants, such as the Dandelion Queen Anne's Lace, Buttercup, Chickory, Blue Weed, Orange Hawkeed, Oxeye Daisy, have attractive flowers—and also the Burrdock that give the kids so much satisfaction in sticking the burrs on their friend's clothing or hair, and for flowers are the red stemmed Russian Thistle of the west, and the brown fruited Dock of the east. Most of these plants are undesirable from the farmer's point of view—especially in the pastures.

It must be recognized, however, that laws do not kill weeds; and that they are bound to spread in spite of man's efforts. We should come to recognize their beauty values and also their soil making values. Anyone who has dug up the roots of Burdock or Chickory realizes much soil value is added through the decay of such big roots. We should recognize that there are many attractive flowering plants of which seed can be collected and planted against the walls along the roadsides, or in fields to give their beauty to the landscape. This would include Hollyhocks, the German Iris for dry hot banks, the Siberian Iris for wet open banks, the Japanese Iris and Yellow Gladwin

Iris for wet grounds.

The Russian Multiflora Rose, with its abundance of fruit, promises to become established in the wild, as does the Panicled Japanese Clematis. The floral values of such plants in roadside, meadow, and field landscapes are so great that ways should be found to establish them at very low cost without much extensive ground preparation. This can be done by planting the seed of the herbs, some shrubs, some trees, and cuttings of some trees and shrubs in small prepared beds or in furrows plowed when conditions permit this.

Much can be done to establish plants in the wild by scattering the seed in early Fall over ground that has been scratched over with a rake. Of course, most of the introduced plants seed themselves. I was impressed with the spread of the garden Foxglove in Oregon as seen from the trains in fields and in the edges of the woods. There is also the far-reaching reddish, prickly stemmed Russian Thistle that the wind rolls about in open lands to form great balls. Its young growth is said to have forage values for cattle.

Further eastward were similar floral masses in the prairie lands of such native plants as the brilliant Indian Paint Brush, Brown-Eyed Susan, Perennial Sunflowers, Beebalm. In the east are native Golden Rods, blue and white Asters, Joe Pye Weed, white and blue Thoroughworts, Dandelions, and Buttercups. In the seashore marshes, sedges and grasses gave far-reaching carpets of varied greens, and with such flowering plants as the blue Sea Thrift, and the big-flowered Marsh Mallow. A recent garden escape that covers hundreds of acres of wet grassy land with bright red flowers is the Purple Loosestrife. It has transformed the Hudson River and many southern New England wet meadows.

In western Massachusetts are acres of the garden Thyme that has taken possession of the fields and made fragrant carpets of foliage, with red flowers, to walk over. Over a wide region in the northeastern states, the orange Hawkweed gives brilliant fields of salmon-orange color; and there are

also yellow flowered species. In Essex County, Massachusetts, is the Beverly Broom that covers much ground with low tufts of stems that are filled with yellow flowers in June and July. Its taller growing sister, and Scotch Broom, is spreading in many parts of Virginia, North Carolina, and in come places in Massachusetts and elsewhere, and gives fine masses of yellow flowers and evergreen foliage. There are large patches of the pink and white flowered Bouncing-bet in the poor soil along rail and roadways, also the Butter and Eggs with its yellow flowers, the blue flowered Chickory, the Blueweed, the Scarlet Poppy, and the Grape Hyacinth makes blue fields in parts of Pennsylvania.

In the waters of the south, the Water Hyacinth has spread so thickly as to interfere with navigation; but is dense green foliage and blue flowers do add beauty to the water landscapes.

Mother Nature has thus made marvels of beauty in the brilliant displays of flowers that have escaped from the garden and often spread very rapidly in the open lands to give brilliant sheets of color.

There is a Society for the Preservation of Wild Flowers, of which Mr. Crosby at the Massachusetts Horticultural Society is the prime mover to check the extermination of such plants as the Trailing Arbutus. Should there not be Mother Nature Garden Clubs to preserve and increase the floral beauty of our roadsides and fields in such ways as are indicated.

It is true that such plants as Russian Thistle, Chickory, Ox-Eye Daisy, and Orange Hawkweed do destroy farmers pastures, but it has not been practicable to hold them in check. Furthermore, the trend is toward the cultivation of crops so intensively, with a much greater yield per acre, with the use of chemicals in such ways that cattle may be confined to stables as hens are now confined to coops and cared for with automatic devices in ways that give better health and egg yields without their feet touching Mother Earth in the open.

ROADSIDE, FIELD, WILD GARDEN PLANTING

The Mother Nature Garden Clubs should give special attention to roadside planting that will tie together the nature gardens and the beauty of the field crops such as Wheat, Corn, and Oats with varied foliage textures and colors—the Buckwheat with its white flower, Mustards with their brilliant yellows, Clovers and Alike with Purple, white, and blue flowers, Crimson Clover with its crimson flower, also Sweet Clover with white and yellow flowers. There are also the orchards of Apples, Cherries, and Plums with white and pinkish flowers, and the Peach with pink flowers. The wild flowers already referred to should often be encouraged and spread along the roadsides by the weeding out of such unattractive pests as the Ragweeds that afflict hay-fever sufferers, the Horseweed, the Pigweeds, Amaranth—that do not have attractive flowers or plant forms. The Common Dock and the Milkweeds have winter fruit that has decorative values.

In all this, we must consider that constantly increasing numbers of people will see the beauty of the landscape from the air, and that the floral patterns of the wild garden fields, the farm crop fields, and the orchard fields and water areas must be considered by those who develop landscapes.

LANDSCAPE VALUES

One of the great pleasures and interests in my life has been to recognize the little areas in nature that are never exactly alike. In my youthful days, I thought Chinamen all looked alike, but I soon came to recognize that every Chinaman had a face of his own. It is most interesting to study the noses of people and see if you can find any two that are exactly alike. Of course, you will find certain types of noses on the colored people that are seldom to be found on white faces; just as you will find marked variation in the bark, twigs, and leaves of trees of the same family.

The individuality of plant life is so marked that scientists have separated the multitudinous forms of the life that has its roots in the soil or that crawls, runs, or flies on or over the soil, or swims in the water. In studying trees, one soon comes to recognize the different species by the general outline of the youthful or mature trees, the leaves that may be very small like the Chinese Elm, or very large as single leaves like the Catalpa. There are also pinnate leaves with a central stem on which are leaflets that run from three to thirty or more. There are also cut-leaf form of trees and shrubs such as the Fernleaf Beech, Weir's Cut-leaf Maple, and Sumac, and the Elm.

There is a great variety in the coloring of the young leaves in the spring. The Red Maple and some Oaks have bright red spring leaves; other trees have yellow leaves, others vivid greens, some are gray-leaf, and others almost brown. There is as much variety and more refined and dainty colorings in the early spring leaves than there is in the summer foliage or in the autumn foliage. The autumn colors with the greens and the gray-greens of the summer foliage offer much the most spectacular color scheme of the year—especially in the northlands and the mountain lands, with less of the high color values in the south, on the Pacific coast and the Great Plains.

There is also marked variation to be cutlines of trees that vary from the plumed forms of the American Elm, the oval forms of the Maple, the rounded

and the oval forms of the Oak, and the columnar forms of the Birch and of the varieties of the English Oak, European White Birch, and the Sugar Maple. There is marked variation in the arrangement of the branches. Some trees, like the Tupelo and the Pin Oak have many branches that are nearly horizontal. Most of the trees, however, have branches that have an upward trend in their habits of growth. One of the greatest pleasures in the winter time is the study of the tree tops and twigs against the sky.

There are horticultural varieties with weeping branches that are interesting in both summer and winter. They include such varieties as the weeping European Beech that makes a tall, broad tree with twigs hanging down horizontally from the branches. There is also the weeping flowering Dogwood, the white Mulberry, the mountain Ash, and the Scotch Elm. Some of these are forms of the type tree that have taken a spreading habit on the ground. They are grafted high enough up on the stem of the type tree to give it an opportunity to hang down to the ground.

Almost every tree has a distinctive bark. The bark of the Elm is in narrow ridges with rather thin flakes of bark. The shag bark Hickory has rather broad irregular cakes of thick bark that turn up more or less at the ages. The Buttonball tree, as it begins to mature, sheds the gray outer bark in pieces of varying size and exposes a lighter inner bark in such a way as to make a trunk that is unlike any other tree in cultivation. The Hackberry or Nettle tree has a grayish bark that is arranged more or less in elliptical ridges on the surface. The Sweet Cherry has a glossy paper-like reddish bark on the branches and the under part of the trunk. The Green Birch and the Canoe Birch have white paper-like bark which can be clipped up. The Canoe Birch bark was at one time used for making Indian canoes.

The under twigs and branches of nearly all trees are smooth. Some trees like the Hawthorne and the Honey Locust have long, sharp thorns. The

Black Locust, Prickly Ash, Roses and Blackberries all have rather short thorns or prickles.

Many of the trees have inconspicuous flowers, others give extremely fine floral effects in the spring, fall, or summer, as the Magnolia of the south, the Horse Chestnuts, Catalpa, Black Locust, Buckeyes, and the fruit trees. Heretofore, I have referred to trees that drop their leaves in the fall, with few exceptions, such as the Magnolia Grandiflora. There are many cone-bearing trees that hold their leaves all winter such as the Pine, Spruce, Fir, Cedar, and Hemlock that do not have the marked variations in foliage that is to be found on the deciduous trees. They are, however, extremely important elements of landscape in the eastern, northern, and in the western mountainous regions that were originally tree covered. There were few, if any, of such trees in the great north, westerly, and desert regions. There is a marked variation in the foliage, color, and texture as indicated in the short gray-green leaves of the Hemlocks and Spruces, the green leaves of the Long-leaf Pine, and the yellow-green of the Loblolly and Slash Pine. In the Rocky Mountains there is much of the silvery-green of the Silver Fir and the Rocky Mountain Blue Spruce which is in cultivation.

There are many horticultural varieties of trees and shrubs with upright habit, cut leaves, and dropping stems to which I have already referred, and also the brilliantly colored summer foliage such as the purple leaf Beach Plum, Barberry, and Hazel; the golden leaf Elm, Spirea, Syringas, Hoptree, and the Schwedler Maple with its red leaves in the spring and summer; also variegated leaf plants such as the Weigela.

The time will come when these special horticultural types of trees will be massed in plantations in such a way as to give private home grounds, estates, parks, and landscapes special values in texture, form and color. Now most of our plantations are made of a mixed up jumble of many varieties with the peculiar horticultural forms as specimens standing by themselves or

merged into the green shrubbery where they cannot be conspicuous. There could be extremely interesting landscape units in which the weeping forms of the deciduous trees, also some evergreens, such as the weeping Norway Spruce, could be planted. In one of these units, the weeping Beech could be made dominant, in another the Weeping Dogwood, with such low-top forms as the Camperdown Elm, and Weeping Mulberry could be used to form the low-growing centers or vistas. There could also be purple-leaved units in which the Purple Beech would make the dominant high tree, supplemented by such low-growing trees as the Purple Plum, and such shrubs as the Purple Hazel, Purple Common and Japanese Barberry. There could also be a golden unit with the tall, golden English Elm as the dominant tree, the golden Hop Tree of lower growth, and such shrubs as the golden nine bark Spirea, Elder, and Sweet-Centered Syringes.

Those who have to do with the designing of landscapes such as landscape designers, foresters, farmer, and engineers, must recognize that the views from the airplane are going to be much more important than the views from the roads, rails, and waters—with exception, of course, of many views from the summits of mountains, hills, and other high points. It should be recognized that far-reaching foliage masses of like color and texture may be developed through the selection of material in the forest cuttings that are made to gain the economic values therefrom. In the northlands, where the spires of the Spruces are dominant, the mixtures of Pines may be out therefrom the give emphasis to this Spruce dominance. In other sections of the north, the dainty foliage of the Hemlock should be made dominant. In other sections, it would be the White Pine, the Pitch Pine, and the Red Cedar. About the Great Lakes and to the westward, the Banksian and Lodgepole Vine fawns of the Rocky Mountain Spruce, the Silver Fir. On the Pacific there will be the Douglas Fir, the Redwoods, and the Sequoias, with some areas in which the native Palms and the cultivated palms will be dominant. In the southlands, many areas will have the Palmetto and the Cypress as the dominant feature.

Another important factor in the landscape as seen from the air will be the orchards of such fruit trees as the Peaches, Apples, Pears, Cherries, and Plums in the eastern and northeastern regions; and the Oranges, Lemons, and Olives of the Pacific Coast. There will also be the great areas of cultivated lands in which the color values of Wheat, Barley, Oats, the Purple Alsikes, and Olives, the blues of the Flax, the white of the Buckwheat, the crimson of the Crimson Clover, the great Tobacco fields with their broad leaves, the Cotton fields with their broad leaves and White Cotton will be of great importance as seen from the air.

I am sure we can look forward to the time when the farmers will have outings in the air to study the scenic values of their crops, and they may take their wives with them. One farmer may say, "I think I will plant that field with Crimson Clover." Another farmer may say, "My wife doesn't like Crimson, and it would also appear in the view from our home. Could you not consider some other crop?" The first farmer will answer, "Yes. I think the Blue Vetch would serve my purpose just as well." The second farmer will say, "That's just fine. My wife likes blue."

Another element of interest in the view from the sky will be the great prairie regions, the great plains, and the desert regions that vary greatly from the greens of the Grasses to the grays of the Sage Grass. During parts of the seasons, many of these areas are great wild flower gardens that give very attractive carpets of color as seen from the sky.

The time will come when farmers and landowners, including of course the national forests and the parks, public lands, Indian reservations, will direct their attention to forest tree thinning, forest planting, and the arrangement of their orchard areas in ways that will add great beauty to the landscapes, and at the same time increase the utilitarian value. We may also look forward to the time when such forest thinning will be directed toward the removal of the dull colored trees from among the brilliant autumn colorful areas, so that there will be broader and less broken masses of

coloring and foliage material. The forest growth that is not thus selected by thinning may include the Ash that drops its leaves early, the Birches, Hickories with the yellow early falling leaves, the browns and yellowish-browns of the Elmaud Buttonball tree, the brilliant scarlet of Sugar Maples and Tupelos, and such beautiful undergrowth trees as the Flowering Dogwood with its showy spring flowers and its brilliant autumn foliage and fruit. There may be places where the Flowering Dogwood may be made dominant in a thousand acres, through the thinning out of other plant material, and the planting of encouragement of the natural production of seedlings. This would apply also the Redbuds and the Hawthorne, the brilliant scarlet Sumos, Huckleberry, Blueberry, et cetera.

We must also recognize the landscape values of the flowering herbs such as the Goldenrods, the Asters, the brown-eyed Susan, the Purple Cornflower, the Iron Weed, Joe Pye Weed, and the Marshmallows. These being, for the most part, native plants. We must also recognize the beauty that has come into our fields and along the roadsides from the immigrant weeds that have beautiful flowers; this would include the Dandelion, White Ox-eye Daisy, Blue Chickory, and the Orange Hawkweed. This may even include the Russian Thistle that has covered so much of the western lands, and gathered itself into great balls that roll about the lands. While such plants are looked upon as weeds that impair the value of pasture lands, it must be recognized that they cannot be exterminated, and that it is well to recognize their beauty values. They may even be planted in lands that are being withdrawn from cultivation on account of the poverty of the soil. It must also be recognized that some of these plants do enrich the soil through the production and decay of big bushy roots, such as are offered by the Burdocks.

What has been stated with reference to the development of landscapes in a large way to gain more scenic distinction with better combinations of forests, cultivated land, roadsides, and orchard areas, applies also to the

development of parks, homegrounds, and institutional holdings about the more thickly settled grass. The tendency has been to make a mixed-up jumble of many kinds of plants to gain variety or to find a place for new kinds that friends may suggest and the salesman urge you to buy. It is better to have great masses of floral color and of foliage, fruit, and twig values so arranged as to give effective displays of color, form, and texture for each period of the year. This would apply not only to land under cultivation, but also to the open lands that are important factors as seen from the dominant outlook point. There may be lands on which there are blueberries and huckleberries that make an attractive ground cover with good fruit and burnt autumn foliage color. Such existing growths can be taken up and transplanted to another section where they will establish themselves and form great wild gardens that will require little care. The dominant plants in such wild gardens may be the Joe Pye Weed, the Iron Weed, the Marshmallows that have already been referred to. There may be other fields in which great masses of the Scotch Brook with its green foliage and the lower growing Woad-Wax may be planted where there are great yellow flowers.

A news item tells of forests being established in the Hawaiian Islands by dropping seed from airplanes. May we not look forward to the time when floral ground covers will be established in the huge dust bowl of the west or in other barren or open fields and open woods. This may also include the fruiting food plants such as Apples, Plums, Cherries, Peaches, Blueberries, Raspberries, Blackberries, Juneberries, and such flowering trees as Dogwood, Red Bud, and many flowering shrubs and herbs.

It should also be recognized that there are many of the cultivated shrubs such as the Lilac, Forsythia, Japanese Barberry, Matrimony Vine, Privots Buckthorn, Jetbead, Mezereon, Bush Honeysuckles, Japanese Evergreen Honeysuckle, that can be established in open fields or in the woods to add to floral values.

COLOR IN LANDSCAPE

In the southlands, wonderful floral displays can be secured by planting such plants as the Bougainvilleas, the Hibiscus, Oleanders, and Royal Poinciana.

One very important factor in landscape is water of the ocean and its inlets, with the Great Lakes, and the small lakes, rivers, and all the reservoirs that have been established to supply water for the cities and for the development of hydraulic power. There are also many swamp areas where lakes can be established that will do away with the breeding of mosquitoes and that will add greatly to land values along the shores thereof.

Another very important factor in planning is the food values of fur, feather, and fin wild life, and of wild or naturalized fruit referred to above. Many of such plants in the wild can be budded or grafted over to cultivated varieties.

COLOR IN LANDSCAPES

The landscape profession, or the growers and distributors of plant materials, have never given enough attention to foliage color in the development of landscape.

The most exquisitely beautiful period of foliage color is in the spring when the buds open up to let the new leaves awaken from their winter sleep. The dainty greens, grays, reds, and yellows correspond to the complexion of children before the period of freckles and pimples and the later period of powder, rough, paint on lips cheeks, and fingernails, and freaky duds from the top of the head to the tip of the toes. It is a relief to jaded eyes and minds to see a group of the Sisters of Charity with their uniform costumes of black and white.

With the opening of the leaves, we do find that man has produced gaudy colors, such as are represented by the purple-leaf beech, the purple plum, hazel, and barberry; the golden-leaf oaks, elder, and Syringa; and also shrubs with variegated leaves. While these may be regarded as freaks, just as an Albino is a freak among the human race, they may well be given a more important place in the development of landscape than they have been receiving as individual trees in parks and private grounds.

Well do I remember the time when I was with my master, Frederick Law Olmsted, in the examination of a place in the western part of Massachusetts where the gaudiness of such colored leaves, trees, and shrubs were spotted into much of the lawn border plantation. Mr. Olmsted said to the owner, "You should modify your planting to get rid of this garish condition." This so offended the owner that he did not continue the arrangement with Mr. Olmsted for the development of his place.

One, however, recognized that special color distinction could be given to certain valleys and glades in landscape planting, where these plants are made dominant to give a purple glade, a golden glade, or a gray glade. The grays form a very important element in landscape as represented by the olive

groves of the Pacific Coast. Mr. Olmsted considered that they had special value in giving the effect of distance by graduating the colors from the dark green, through the light greens, to the grays in vistas. At Biltmore where he wished to produce this effect, in Mr. George Vanderbilt's estate, in North Carolina, it was up to me to find the gray-leaf plants that would be hardy as olive would not be. One of the plants selected was the Russian Olive, Eleagnus Augustifolius, that grew about the right height and had the right color.

The importance of autumn colors in the landscape is indicated by the statement of E. Lowell Kammerer, of the Morton Arboretum, of Lisle, Illinois, who is his list of "Trees and Shrubs with Pronounced Autumn Color" states that little attention has been given to autumn colors in arranging plantings of ornamental trees and shrubs "That are capable of effects outrivaling the most lavish floral displays of spring and summer." He lists about twenty-five trees, shrubs, and vines with autumn colors that range from bright orange, through clear golden yellows, with brownish, bronze, and purple shades. He gives a dozen trees and shrubs that are distinctly orange that range from orange, through scarlets, to purplish reds; nearly forty trees and shrubs that range from orange-scarlet, bright red, to purplish red, and brownish reds. He also lists one tree, the white ash, and about twenty shrubs that range from purple, to bronze purple, with some shades of yellow, and orange, and rose, pink and creamy white, and five trees with brown foliage.

I have persuaded a few clients to mark trees during the autumn color period that should be cut because their color is so much less brilliant than most of the autumn foliage in the group. This applies also to shrubs.

Plant growers have not as yet come to recognize the fact that the autumn colors of some shrubs and trees are extremely brilliant, while others of the same species are dull and unattractive. This applies to such plants as the sugar maple, and Japanese barberry, Van Houttes spiraea, and many others.

There are some varieties, such as the Euonymus alata, in which about all plants have the same "crimson scarlet of outstanding brilliance" and the "Vapicleaf viburnum acerifolium that varies from deep purple to dull red, rose, pink, and creamy white, and is very striking." These quotations are from Mr. Kammerer's bulletin referred to above.

We may look forward to the time when autumn foliage will be more and more a determining factor in the selection of trees for large scale landscape planting and thinning as seen from the air. There will be great areas of flowering dogwoods developed by thinning or planting that will not only give the beautiful displays of white flowers in the spring, but also the brilliant scarlet autumn foliage and fruit. In other places, the sumacs will be encouraged to cover the great areas as a cover plant for the sake of their brilliant red, crimson, and orange coloring. Places will be formed where the tupelo or sour gum will be made the dominant plant by thinning others away from them, especially in the wet ground where it will do well. There may be areas where the evergreen white cedar of the south and the arborvitae of the north can be planted with them in wet ground to give the marked contrast between the crimson tupelo foliage of the autumn and the evergreens.

Much more attention is likely to be given in the future to the encouragement of the huckleberries and dwarf blueberries, that grow in the uplands, and the high bush blueberries, that will also grow in the wet lands, on account of their fruit and also on account of their brilliant autumn colors. In other places nut trees, such as the hickories and butternuts of the north and pecans of the south, will be made dominant on account of their fruit and their bright-yellow autumn foliage.

It should be recognized that some of the plants show their brilliant colors early in the fall, and others at later periods. This, of course, should be considered in the development of autumn foliage landscape.

We may look forward to the production of power for all uses in ways that will do away from the hydraulic water powers and the stream engines of today, with the boilers that fill the air with soot at the rate of many tons to the square mile, thus doing away with the tall chimneys that are not attractive elements of landscape, and possible doing away with transmission line wooden poles and high metal frames that carry the electric and telephone wires. This, of course, will remove the other unattractive incident from landscape, especially in our cities and residential areas.

The great reservoirs that are established to produce power will continue as elements of beauty in out landscape as seen from the shores, from elevated outlook points, and from the sky in airplanes. Another dominant factor in the planning for the America of the future will be the Great Trunk Line thoroughfare that will be much wider than the principal roads of today to take car of a separated way for pleasure traffic, for freight traffic, for the bus where speed is desired, and for slow-moving vehicles that will wish to enjoy there will be concourses out of the line of traffic and on the other side of the road where people can stop. There will be reservations around the concourses to keep open attractive foregrounds for the views of restrictions as to the height and character of buildings that are placed on this concourse to serve the public in ways that will not interfere with the cars of people who want to enjoy such views from the var.

There will be airplane landing strips at intervals along the sides of these straight thoroughfares where people can pass from the plan to the automobiles or to boats on the water where conditions favor this, or to the autogiro taxicab type of aircraft that will taxi people from the main field landing places to their destinations.

These great trunkline thoroughfares and the changes in land use that will throw many areas that are now cultivated without profit by reason of the

poverty of the soil into places for recreation; and we may look forward to the use of the old-time horse and buggy and carryall transportation to points of interest thereon, on roads that will be abandoned by the automobile.

Another extremely important factor in these large areas will be the development of wild life for hunters and fishers and others. There will be constantly increasing areas of land set aside in public or semi-public reservations to include the areas on which the soil is not suitable for growing crops profitable. Much of the such land will be maintained in forests that will be so administered as to give a continuous crop, and not cut clean as in the past. In such areas most of the old roads will be retained and new roads for vehicles, equestrians, and pedestrians to move about. Such ways will also be located and maintained as fire lanes over which fire fighters can pass readily to their equipment. These areas will also be build as game sanctuaries within which game can only be hunted with the camera, and as hunting areas.

Special attention will also be given to the development of fruit-bearing areas where people can secure such fruits as the native apples, peaches, plums, cherries, pears, grapes, blackberries, thimbleberries, blueberries, huckleberries, cranberries, strawberries, juneberries, gooseberries, raspberries, and currents; and such nuts as the hickories, blackwalnuts, pecans and butternuts.

The existing growths of such fruits will be developed by removing the plant material that is crowding the fruited plants. There will also be much budding and grafting done to develop better varieties on the native trees. There will be much planting of the varieties that will grow without special attention other than the clearing away and rubbing out of the plant life that is injuring the fruit family, to which reference has already been made. It is probably, too, that in the huckleberry and dwarf blueberry sections, fruiting conditions may be brought about by the judicious use of fire to burn over the areas, kill the tops of the plants, and produce a new growth

on the roots as is being done at intervals in the huckleberry and blueberry pastures of Maine. It may be found better, of course, to put down the plants with the moving machine or the scythe. With the constant increase in spare time of people through shorter working weeks and working hours, and with the automobile available, more and more attention will be given to gaining food varieties from hunting and fruit picking in such areas as I have referred to.

Those areas will be under the control of competent people who will aid in the propagation and in the development of the plant growth, and the fur, feather, fin, and the hopping and creeping wild life. There will be control administration buildings and camps and camping areas in which will be camps that can be occupied immediately, and places for tents, playgrounds, and good sanitation. For the maintenance of such service, a moderate charge must be made for the camping, hunting, and fruit-picking privileges. In most of these areas the automobile will be excluded. We may look forward to the time when the horse and buggy and the carryall will come back on public roads and thoroughfares in such reservations.

It must be recognized that much land must be set aside in such reservations by means of poverty of the soils and the rock formations therein and thereon, and also that modern agricultural methods through development and use of various seed, more complete fertilizer, better methods of cultivation and the use of modern farm machinery are producing much heavier crops on smaller land areas. The trend toward draining big swamp areas, such as in Minnesota, to make additional farm land is being abandoned, and in some cases swamp conditions are being restored again to provide breeding places and food for such water life as the birds and the rodents, ducks, geese, muskrats, beaver, deer, and the other creatures that gain or seek shelter in the open wet lands or in the Cedar or other tree thickets therein.

Turning again to farm lands, it must be recognized that hens that

formerly were given considerable outdoor area for exercise and for feeding are now being raised in enclosed buildings where they are confined to cages where food and water is supplied and wastes are removed largely through the use of automatic devices, and where the eggs when laid will roll out directly into the open where you can get directly at them. They say that such hens seem to be happy, healthy, more than when they were in the old-fashioned hen-houses or henyards or in the open when they laid their eggs in different places where children could have the fun of hunting them. The statement has been made that egg laying may be increased, and the hens made happier by the use of the radio.

I believe we may look forward to the time when cattle will be kept continuously in stables with food supply and wastes removed by machinery and entertainment provided by the use of the radio. This, of course, will greatly impair landscape values by removing the cattle therefrom. The probability is, however, that their importance in landscape will be so recognized that they will be kept in the fields and pastures even though it should be found more efficient to keep them continually in their stalls. It is a matter of interest to know that cows are being taken to the cities occasionally to give the city children an opportunity to know what a cow looks like and how it behaves. I must say here that the cow is one of my favorite creatures. The statement has been made that the steep streets on Beacon Hill, in Boston, Massachusetts were laid out by the cow. This I consider a libel on the cow, because she is not so foolish to climb straight up the hill on steep areas when she can climb her way up easier paths with a gradual climb up the slope. It is also a matter of interest to know that during the period that includes Milk Day here in Boston, several cows and calves are to be brought into Boston Common where they can feed on the grass there as they did in the early days when the Common was first set aside for cow pastures, and where they can be seen by the city people.

It is a matter of interest to know that cows have a large amount of curiosity as I have found when they would follow me when I was making maps in the fields where they were grazing and would even go so far as to stand on the plan. Horses will take a quick look and then run off. Pigs and sheep have no interest in the land planner's movements, as a rule. It is of interest also to know that cows are good topiary gardeners for they will trim apple trees and some other plants in the pastures, and keep them there until the new growth. We should recognize that if the cow is withdrawn largely from the pastures that we may look forward to the presence of Deer, Elk, and Moose therein, in the great game sanctuaries to which reference has been made.

We must recognize that a constantly increasing number of people who travel will go by air and that the development of the landscape as seen from the air will be one of the problems of the landscape designer, especially as there will not be many years before there will be sightseeing excursions from airport centers to include the regions that have special scenic or historic conditions. Several hundred miles can be covered in a day from airports.

Not only will such trips be made for recreation, but also for education. Not only for the youth in the schools, but also for those who are beyond school age.

In a trip from Boston, the forest distinctive objects may be taken in the day's ride. Boston Harbor with its greatly varied island and peninsula land formation cannot be duplicated in any other part of the world. Cape Cod, with its much varied shorelines, beaches, sand dunes, and ponds, ancient white houses, its boat harbors for many types of crafts, Cape Cod Canal through which more big boats and its extremely varied coastline; the island of Nantucket, and Martha's Vineyard with its peculiar cone-like narrow bays between narrow strips of land that are cut off from the ocean by a nearly continuous beach—the like of which it would be hard to find elsewhere. There are also most interesting and varied big bays that are separated from the

ocean by long, narrow strips of land at Duxbury and Plymouth. To the northward is the peninsula of Nahant that is connected with the mainland by a long, straight, narrow strip with beaches at the ocean's edge. South of this is the very long Revere Beach, north of the harbor entrance, and other peninsula with Hull as its terminus at the southward harbor entrance.

Further to the north comes the high-ledging Cape Ann and Marblehead Peninsula and Island. To the north of this comes the long Plum Island with bays and waterways on the landward side that should be opened as a protective inland channel passing back of Gloucester, back of Plum Island to the Merrimac River bay, then northward to Hampton River, in New Hampshire, with the possibility of its being extended nearly to Rye. From this inland waterway are such stream valleys as Ipswich and the Parker Rivers through which there may be canoe ways. These are the valleys that have the most attractive landscape elements that are fringed with much deciduous and other green tree matches on ledgy mounds and ridges and about pastures and cultivated fields. There are distinctive planning and architectural values in the towns of this region. Of course, Boston with its high buildings is dominant with the shipping about its wharves. There are Navy Yards at Charlestown, Mass., and Portsmouth, N. H. that are of special interest as seen from the aid. There are sailing craft and other pleasure craft in the bays of Quincy and Marblehead. There are the high hill reservations of the Middlesex Fells and the Blue Hills, with villages and cities in the more level lands around the base of these reservations, each one of which has some special interest as seen from the air.

There are other landscape features of special interest to be seen from the Merrimac River with cities and villages along its shores for which the water power developments along this river were largely responsible. Continuing northward the Mount Megunticuk near the Maine coast to the westward of Wells and York will be the first of the big hills on the way to the White

Mountains. To the northwestward from Boston, one would find the Drumlin Hill region and the southern N. H. mountain range. To the westward, Wachussett Mt. would come along, then would come the Connecticut Valley with its rich tobacco much of which is grown under cloth-covered frames that are conspicuous objects of landscape. There would also come the cultivated onion fields, still further to the westward would be the Potnic and Berkshire Mt. ranges that are a continuation of the Green Mt. range in Vermont. To the southeast of the Boston region are the fairly level plain lands much of which are in cultivation. To the southward from Boston is the lake region in and about Plymouth, very picturesque, deep, and irregular bats. The long bays come in from the ocean to Cape Cod and to the town of Fall River, and also pass into Connecticut to the west of the Mass.-Rhode Island boundary. Then to the southwest comes the rolling lands of Connecticut, the Thames and Connecticut River valley, Long Island Sound, and Long Island.

In such air trips, the pattern of streams, lakes, roads, fields, and forests are most conspicuous. One does not recognize he variations in the surface levels, the ridges, hills, and valleys from the air as they do from the ground. In the planning of such big regions, advantage would be taken of the work of the National Resources Board and the State Planning agencies that have made records and plans of land conditions and uses that can be taken advantage of in such ways as to add to the beauty of the landscape as seen from the air. For example, there would be a region in which conditions would favor the development of orchards that are so attractive with their floral value as seen from the air in the spring. There are other areas that are favorable for such field products as corn, rye, wheat, oats, buckwheat, squash, pumpkins, tomatoes, and vetch, clover, sweet clover, potatoes, beans, celery, and the cabbages. Most of these crops have landscape color and texture values as seen from the air, with considerable variation therein, as they progress toward maturity.

We may look forward to the time when the government department and the privately organized associations that have to do with these crops will make their studies of existing fields, of their extensions, and the crops thereon as seen from the aid; and recommendations will be made for the extension of such areas and of the use of crops that will increase the scenic values as seen from above. For example, a group of farmers may decide that the vetch with its blue flowers or the crimson clover with its scarlet flowers, the yellow of the mustard, yellow sweet clover, or the buckwheat with its white flowers will be made dominant crops because the floral values and the utility values that will be just as great or greater as the kinds that do not have bright colors as seen from above.

Reference has already been made to the use of land areas for game preserved, hunting areas, and fruiting areas, and for forests. The forest study is particularly important as seen from the air. Reference has also been made to the intensifying autumn color values by removing the dull colored trees from among the brilliant colored ones. This, of course, means marking the trees for cutting when they are in their autumn foliage. Light thinning to gain landscape effects would be made, with a view to developing great masses of small trees as the Flowering Dogwood, Redbud, Hawthornes. There are such flowering trees as the Catalpas, Horse Chestnut, Buckeyes, the Yellow Wood, the Black Locust, the Tulip Tree, and some Magnolias that can be planted in great masses for their floral values.

By thinning away trees that are crowding and especially by planting seed or seedlings over large areas that have favorable conditions attractive areas will be secured. The fruit of the Flowering Dogwood is said to have real value as food for grazing animals. The evergreen forests can be thinned to bring out the dominant trees, such as the White Pine, the Norway Pine, the Pinch Pine, the Hemlocks, and the Spruces. The concolor or silver Fir, and the Rocky Mountain Blue Spruce could be planted in large areas to gain a bluish-green foliage color as a new factor in landscape.

New color values can also be gained in landscape by the use of such shrubs as the yellow flowered Forsythia and Lilacs for spring, and the Hydrangeas for fall, the Japanese Barberry for its brilliant autumn colors, and winter fruits for open lands. For shade, the Hydrangeas, Evergreens, Rhododendron, and Mountain Laurel may be used.

In all this planting the value of fruit for the birds and other wild life should be considered in the selection of varieties, for wholesale planting particularly in the game sanctuaries.

Roadside Planting—One of the dominant features of today is the planting along the roadsides. One must recognize that there should be not less than five miles of the special floral, fruit, or autumn color plantation to be effective as seen from the automobile, because one would cover a mile in about two minutes, and this hardly gives time to enjoy or appreciate such beauty. One of the first problems in the work along the roadsides is the development of suitable native plants where they can be placed. One of the essentials in the roadside work is to keep low-growing varieties next to the road. The low native shrubs that are used for this purpose and should be encouraged where they are in place or should be brought in, are the dwarf and half blueberries, huckleberries, the sweet fern, the New Jersey tea, the dwarf-bush honeysuckle, fragrant sumac, the trailing evergreen barberry, the running euonymus, the beverly broom, the hypericums, the meadow spirea, rhodora, hill-green lambkill, the prostrate juniper, the Virginia rose, the wild gooseberry and currant, the introduced Japanese evergreen honeysuckle. Where these plants are existing the other plants should be rubbed out or killed by some chemical application, not cut down tot he ground, because they will spring up again and require frequent cutting. There are many places where this material can be taken up in sods from nearby fields and transplanted to the roadsides. Such low planting should be at least ten feet and preferably 20 feet wide. Next to the boundary lines can be the tall, native shrubs. As

I have already indicated, each road should be given some special floral distinction with the use of varieties that will flower in the spring, summer, and fall. This of course would include trees, and vines as well as shrubs. You can well understand how vines of Wisteria, and Trumpet Vine would give spring and summer beauty on five miles of the roadside if planted on trees, on the boundary line, or walls, or buildings.

I would have grass omitted entirely on roadsides and banks outside of the residential areas where the turf lawns are maintained and also in many places in the residential areas where a ground cover can be established in the beds on either side of the sidewalk that will not require constant maintenance. This includes such plants as the Evergreen Myrtle, Pachysandra, the Lily of the Valley, Bugle, Moneywort, some Veronicas, and Wine-Leaf Cinquefoil.

There are, of course, many varieties of tall and medium size flowering shrubs that can be used back of the low shrub boundary line to give different floral, foliage, or fruit values. The plants that have especially brilliant fruit well into the winter are the common Winterberry, American holly, Yaupon, and some varieties of Thorn. Plants having a distinctive foliage to fine street distinction are the cut leaf form of the Elder and Staghorn Sumac, and the smooth Sumac.

I have already referred to the omission of grass along the country roadside because it would require so much maintenance and because it would be a fire menace when dry. Where it seems necessary to have a turf-like ground cover, the Common White Clover, or its Kent County variety can be seeded in. Nearly everyone recognizes the importance of street trees to give shade and to add interest and beauty to the traveled ways. Usually, such tall growing trees as the Oaks, the Norway Soft and Sugar Maples, the American, English, and Scotch Elms, Horse Chestnuts, and Catalpas occasionally and Sugar Maples, the Lindens, the hen red scarlet and white Oaks of the north

and the ever green water, live, and willow Oaks of the south, and the Maidenhair tree. These trees sometimes developed by taking advantage of the natural growth along the roads, and occasionally they are planted in this way. Usually they are planted with irregular spacing along the residential streets and in the main streets where business blocks are not dominant. Too often the trees are placed so close together that they do injury to each other and to the adjacent grounds, and keep out air and sunlight from homes. There are many towns where from 1/3 to ½ of the trees should be removed. I found this to be so in Washington in an examination that I made of the city with Col. U. S. Grant II. He agreed with me that about ½ of all the trees in the city should be cut. I wrote a letter to this effect to the department in authority there, but really nothing has been done in this direction, owing chiefly to the "woodman spare that tree" sentiment that most people have. These people see to it that they themselves and their children are not constantly jammed in on other people in ways that will impair their health and efficiency.

It would be quite feasible to give streets special floral distinction by the use of more catalpas and horse chestnuts even if they are objectionable on account of the seed pods and the horse chestnut fruit. More attractive results could be secured however, by use of such trees as the flowering crab, cherries, the redbuds, and the flowering dogwood, all of which could be trained to stand up in nursery rows with trunks that would be high enough to carry the tops above passing automobiles. It would be quite possible also to train up some shrubs like the taller forms of the syringa, white fringe, silver bell, and some of the witch hazels and some of the hawthorns. I want to again place special emphasis on the importance of giving each street some special flora, fruit, foliage, twig, or plant form distinction, by the selection of vines, shrubs, and trees, one or the other of which will be especially attractive during the greater part of the season. There are

shrubs like the red osier dogwood with bright red twigs, there is also a yellow-twig variety, the tamarish with its slender light brown twigs would give a street special floral distinction in early summer and twig distinction in winter. The brilliant fruit of the deciduous and evergreen plants of the holly family that grow in the north, and the evergreen members of the family in the south, are effective in winter. The evergreen mandiana of the south with its brilliant red berries that are held on well into the winter that is a most desirable medium-sized shrub. There are some of the hawthorns and some of the crabs with brilliant fruit in the autumn. There may be some streets on which the people would like to see the purple-leaf beech as a street tree or the golden-leaf elm, or the fern-leaf beech, and many other medium and large tree varieties that are almost never used in street tree planting. In wet lands the willows make a very good and graceful street tree.

Other persistent plants can be used for a ground cover in shade as the myrtle, or corn periwinkle, the big leaf of the South, the English ivy, and the creeping form of the winter creeper, the blue-flowered varieties of the plantain lily, the tawny day lily, and the yellow-flowered varieties the Siberian iris on dry, sunny slopes, and the Japanese iris for swampy wet places, and the yellow-flag iris in wet soil. There are also some annuals that are likely to persist and give attractive flower such as the drummond phlox, especially to the southward, and four O'clocks that are pretty well established on roadsides in Florida. We must also recognize the special values and beauty of the plants that are looked upon as weeds. There are a few flowers that are so exquisitely dainty with fine cut foliage as the Queen Anne's lace, the brown-eyed Susan that was swept eastward from its home in the west is attractive with its yellow flower, the lance coreopsis of the gardens, and the blanket flower of gardens now becoming established in the wilds in some places and in a spread. One of the most brilliant of the weeds that has been introduced in a comparatively few years is the orange hockweek that has taken possession of open pastures in many of the northern

states which gives a carpet of oval leaves that hug close to the ground and a most brilliant display of orange, red flowers. There is a similar golden lungwort that is found in the fields in parts of Virginia with similar map of foliage and yellow flowers. The chickory is blue flowered, and adds its color in border masses in many waste places and fields. The common dandelion is almost nation wide in its invasion of fields and lawns. The white-flowered ox-eye daisy is a common and attractive roadside and field flower. The burdock with its fine, large leaves would be recognized as a valuable plant for foliage if it were rare and difficult to grow. Surely the children would miss the fun of sticking the burrs on each other and of making baskets and other patterns by sticking together which is secured from our waste grounds.

We must recognize that there is real beauty in weeds that may become benefactors in many places by covering waste and unsightly grounds. It should also be recognized that many of them, especially with the ones with spreading roots, like the burdocks and the other docks, and the chickory, must enrich poor soil to a remarkable degree through the decay of these roots.

One of the problems of the future will be to secure funds for such roadside and semi-public, and public reservation improvements that have been suggested. It is quite essential in the look to the future that every town have its connected system of public and semi-public reservations to include streams, their banks, and their valleys as a whole in some places along which there may be bridle paths, footpaths, canoe ways, fishing pools, swimming pools, and artificial lakes to take the place of mosquito-breeding swamps. Such public ways add enough to the values of adjacent properties to justify the owner to donate lands to the town authorities or to boards of trustees who have authority to hold the lands so that it may be developed along the lines suggested above. Such gifts will stand as a memorial to the donor or to such friends as he may designate. Such memorial will last longer than the memorials of stone in the cemeteries and be a pleasure to many, many people and their own families for a long time.

Even if they are left in the care of Mother Nature, they will be attractive. Even if a fire should sweep through such holdings Nature will in a few years cover them again with attractive foliage and flowers. In many of these areas, there will be a growth of wild flowers that will offer wild flowers, ferns, ground cover plants with trees and shrubs overhead that will give the area great natural beauty. Of course this beauty can be greatly increased by introducing plants that will maintain themselves such as rhododendron, mountain laurel, and other evergreens, and such plants as the jonquils, squills, grape hyacinth, and other bulbous plants that will maintain themselves and increase under favorable conditions with little or no cultivation.

Another very important factor in the development of such reservations as well as the roadside development is the opening up of views and vistas where conditions favor this and where they can be enjoyed from concourses where vehicles can gather outside of the line of travel along the roads.

Such reservations as I am referring to would be for the most part outside of the thickly settled areas. There is usually need of play grounds that can be reached in 1/4 mile walk from the home in the much occupied parts of the town. If such playgrounds can be at the school buildings this would be most desirable if they can be opened all season and not closed during the summer season as they are in many cities and towns. In some times such as Flint, Michigan playgrounds are established in great numbers all over the town, in backyards where the children of the adjacent homes can play without using the dangerous streets.

Another problem of the future would be the development and maintenance of such reservations as I referred to. I have found that there is a great deal of work to be done on Community Day when the whole town is invited to come in their old clothes, with tools helping in opening up trails, views, thinning out and transplanting plants along the way, and putting out the

plants that are contributed from gardens that will be suitable for various types of planting. Usually on Community Day work begins about 9 in the morning and closes at noon when there is a picnic luncheon with some form of entertainment in the afternoon. Nearly always quite a good many people on such days become so much interested in the work that they keep at it all day long. The work is usually laid out with grocer's twine that comes in homes and which is carried on either side of the proposed trails to include the shrubs, trees, and other plants that are to be removed to open outlooks and views of trees, shrubs, and earth that are to be cut down, rubbed out, or removed. It will be found on such days that the children will do as much work as the men if the work interests them. Chiefly they enjoy putting the brush on piles preparatory to lighting a bonfire. They also like to divide the plants that have been contributed and sort them out. Such Community Days cannot be held at frequent intervals, I believe, to include the whole town.

I believe in looking forward to much maintenance work in such reservations on the part of people who have special interests. The Boy Scouts may have a trail section in which they will bring together a collection of all the ferns that they find during the season. The Girl Scouts could have a violet trail, as there are quite a good many kinds of violets in the woods and some that can be transplanted from the garden to the woods. Another group could have a lily of the valley trail and bring together other plants having similar foliage to give more variety in and along the gardens here.

Some of the boys would like to have a section where they could have fur-bearing animals as the beaver, muskrat, woodchuck porcupine, and squirrels that they would help to feed and care for. Another group would wish to have a special bird sanctuary to which they would attract the birds with food.

I believe that here will be groups of men and of women who enjoy spending much of their spare time in public reservations and playgrounds.

The garden club movement has come to be a very important one. It should be extended to encourage and to cooperate with garden clubs on each street to bring about special distinction that I referred to for each street as seen from the roadway and sidewalk. There will be in addition to this many backyard gardens, window boxes and some roof gardens that certain clubs will encourage. In such garden work it will be very desirable to have each home or a group of adjacent homes specialize in the growth of some plant group of which they could bring together a large number of varieties. In such groups there would be the usual three or four flowerage periods to provide for. There could be for example collections made up from a closely related violet and pink family from which plants could be taken that would give flowers through much of the floral season. This could be supplemented by the use of evergreen fern to carry attractive foliage values well into or through the winter. Another group might confine themselves to a selection from spring, summer, and fall blooming bulbs such as snowdrop, narcissus, lilies, and the fall crocus. There is almost no limit to the individuality that could be gained for home grounds or groups of home grounds in this way. A very important factor in such work will be the marked distinction between people and groups. The garden clubs would aid in this. It probably would be best to send out to all the members in each club a letter of information to indicate briefly what is being done and also to indicate the plant material that the members may have to obtain with instructions as to handling this material.

It probably would be found that there is a lot of surplus material that cannot be readily changed. Such material can be assembled and planted along roadsides and in the public reservations that have been referred to. The amount of material that thus can be brought together was shown at Lynchburg, Virginia, where the Lynchburg Garden Club had asked me to give advice with reference to the planning and planting of a main highway there, just outside the city that had some special historic and scenic values. I recommend that the Community Day and gathered about 1500 people together on a threatening day.

I asked people to bring in from their gardens rapid-spreading and persistent kinds of plants. It was found that the people had brought in 80.000 plants. I am told that many of these plants have become thoroughly established along the roadside without special cultivation. One elderly lady came to me and said that she would like to have a memorial for her mother. There was a steep, tree-covered slope in which there were some mountain laurels. I told her that this would be a good place for rhododendrons that would stand for all time in memory to her mother. They were planted at the cost of a few hundred dollars, and I am told that they made a fine growth and make a beautiful floral display each year.

Some of the teachers of the Randolph-Macon Women's College where I have been identified inquired how they could make a memorial to one of the teachers who had recently passed away. She had been sketching the flowers of the wisterias just before she had been taken sick, so I recommended that they should plant wisterias at a big ledge on the roadside and pockets of the ledge in order that it might be covered with cines that would give flowers as her memorial. I am told that this was very satisfactory and that is promises to stand for all time as a memorial to this lady.

It should be recognized that such roadside and reservation plantations will be nurseries from which plants can be secured for other plantations, especially if they are planted in small plants close together in the beginning with a view to their being thinned for elsewhere as they develop.

In my early practice I established nurseries as was the usual practice on large projects, but I found as my background that they were expensive to maintain and that much of the material was likely to be left in the rows and develop into a tangled thicket that would have little landscape value. I have found that the use of permanent plantations as a nursery has proved to be very satisfactory and less expensive.

It should also be recognized that much roadside and park planting can

be done with seeds and cuttings of the varieties that will root readily instead of using the much more expensive plant material from nurseries. The organized garden clubs can get much seed from home grounds from the public reservations and from the wild growth. For example, hollyhocks seed very freely and seedlings would grow readily in good soil along the walls and face of buildings, along slopes, and in rich open land, and give fine flowers the second year. This is true also of the other hardy perennials of the gardens as well as of such annuals as the bachelor's button, and the larkspur, calliopsis, drummond fox, and portulaca. Such seed can be taken to waste places to give their floral values.

In all such planning there comes a condition of the land and the like thereon, land use, intercommunication, and the economic, recreational, educational, and inspirational use thereof by all mankind.

Under world planning the land conditions, such as the great deserts—of which only very small units can be taken advantage of for people's homes—the arctic and antarctic areas—in which comparatively small land units are made free of snow for short periods of the summer, with an abundance of snow, fruits, flowers, and some cultivation—the great mountain areas, of which many are covered with snow, on which about the only use is for forest, and game preserves, some forms of recreation—the great plains of the prairie region, on which crops may be developed in a large way— the region of the tropics, where vegetation is so thick and rampant that it is difficult to clear the ground and grow crops thereon—the proposition of Mr. Howard Hughes of New York, "to fly around the world in 80 hours."

It is essential that there be a World Planning Council to take action that will lead to multitudes of people making notes from the airplane that can be examined and coordinated in such a way as to gain the conditions and the attitudes of people that will make the planning of the world in a sense a People's Plan guided by experts, rather than the plans prepared by the expert planners from their own point of view and knowledge.

While it will be a long time before this situation will be brought about, we certainly should go far enough with the present knowledge to know how our United States and the South American continent can compete to best advantage with the European, Asiatics, and South African continents. We must lay down the dominant planning factors in such a simple and direct way that the people as a whole— especially the young people—can gain a knowledge of such factors and be in a position to offer their own suggestions with reference to planning. Such planning will grow out of a study of such regions as are indicated in the nine units of the National Resources Committee Reports,

that includes the State Planning Boards that are now operating in 45 states as regular governmental agencies, with field offices at Boston, Baltimore, Atlanta, Cincinnati, Omaha, Dallas, Denver, San Francisco, and Portland—with the understanding that these regions will have clearly defined natural boundaries. New England, for example, has natural boundaries; such as rivers, mountain crests, and lakes. The westerly natural boundary is Lake Champlain, Lake George, and the Hudson River to New York.

I have already indicated the problem in the United States as a whole, with its Alaskan holdings that are 1/5 as large as the United States, and its outlying possessions. There will be boundaries that will establish the areas that are best for such great uses as cultivations, as forests, grazing, and cultivated areas, as well as areas for industrial and residential use. Such studies will need to provide for great trunkline thoroughfares across the continent—east and west, and north and south—that will be much bigger than the thoroughfares that are now established; as they will need drives not only for automobile traffic, but also landing strips along the sides for the exchange of traffic between automobiles and aircraft.

It is probably that more attention will be given in the future to waterway navigation in the main channels, with marked improvements in the size and speed of watercraft, so that they will be almost as speedy as the aircraft. There will be a very large, perhaps an immense broadening of the areas that would be set aside for some forms of recreation where conditions do not favor cultivation. This would include the arctic regions of Alaska, the desert regions of Death Valley, and southwestern United States that are already coming to be used more and more for winter resorts.

Of course, here will be opportunities for great air landing fields with competitive and recreational uses that we can hardly conceive of now. These reservation areas will include the mountain ranges and other land on which cultivation cannot proceed and where wild life, including fur, fin, and feathered creatures, as well as the hopping and crawling creatures without fins, fur, or feathers. There should be areas within these reservations that are kept in.

WORLD PLANNING

It is in the interest of our United States and its possessions that there be a World Planning Council initiated here with five Continents, Oceanica, and three hundred or more Nations and Countries therein, represented. This Council should assemble dominantly controlling data as to conditions and uses of the World's land, water, air, and life therein, as to all forms of intercommunication, and as to all available world surplus natural materials, and other resources that are now used or that can be used in the United States as its resources are exhausted or as new material is needed.

Such data as is in existing technical reports, reference and travel books needs to be verified, amplified, coordinated, and presented in such a concise, graphic, and pictorial way that everyone, including our youth—who will soon be voters—can readily comprehend it and fix in their mind the dominant factors that vitally concern them and our Nation. If People's Plans could be made by youthful and mature citizens as a part of their recreation and education for the areas that they know, such plans would be more likely to be executed as already stated.

Competitions between our continent with its United States, all other Continents, Nations, and States, and the most effective ways of meeting such competition should be made clear.

Dominant reasons for making such world studies are that radio, wire, wireless, television, automobile, airplane, and speedboats are now bringing World units so close together that such World Planning is essential for economic, educational, recreational, and inspirational values. It will be distinctly in the interests of the United States if it takes the leadership in such planning.

World governmental, political, and military activities to not need to have a dominant place in such physiographic and economic planning.

The World-wide transportation miracles that aircrafts are bringing to

us are dominant factors in World Planning. Much of the world is now reached regularly by aircraft—and there is promise of passing around the World in a few days through the stratosphere attic of our atmosphere.

On December 17, 1903, Orville Wright made the first machine driven air flight in North Carolina. In 1924, the United States Army fliers made the first round-the-World-trip—375 flying hours in 175 days. In 1923, there were Arctic and Antarctic flights. In 1927 Lindberg was the first to fly alone for 3200 miles from New York to Paris. From July 20 to October 23, 1937, he zigzagged to 75 cities all over the United States. In 1927–28, he flew over Mexico, Central America, northerly South America, Lesser Antilles, and West Indies. Hammond's World Atlas of 1928 maps the above and other flights.

The values of World Planning studies from the air are obvious to anyone who has made such studies. My observations from planes in four states and from a small blimp in one make it clear that one gains a more comprehensive mapping and planning knowledge of surface, water, and under-water conditions that can be gained from land and water vehicles or on foot. While differences in elevations are not clear from the air, the land use pattern that includes the highways, railways, waterways, water areas, forested, open, and cultivated lands, important individual trees, all of man's moving vehicles, and fixed surface structures can be identified and their relation to each other defined from the air better than on the ground. For detailed data, such as the kinds of tree growth, the small blimp that can be moved more slowly and nearer the earth is best.

Soil conditions can often be determined by the character of the growth in field and forest. On poor, arid, very ledgy, sand dune, and alpine summit soils, vegetation is thin, very low, or absent. The forest foliage on poor soil may be so thin that the ground can be seen through its, whereas rich soil foliage is too thick for thin. Field crops also indicate soil conditions.

The land pattern and the cultural and scenic values of foliage, flowers, fruit, and crops as seen from the air are so enlightening that constantly increasing air trips will be taken by foresters, lumberman, farmers, orchardists, nurserymen, and especially by regional, town, and estate planners and artists for the study of their problems.

From the air in Miami, Florida, we were able to locate through the water the best place for the Dayfront Park that was built up in open water with dredged soil. From above the land, there was the complicated shadow patterns between the tops of the Pines to contrast with the broad-leaf patterns of the tall and low Palmettos, and the lacy Bamboos, the big-leaved evergreen Magnolias, the tall Cypress groups and the broad evergreen Oaks. There were enough brilliant flowering shrubs and vines to show the wonderful roadside and field effects that could be secured in like climates in our states and world wide. In California are the Eucalyptus, the unique ancient Sequoia giant trees, Eucalyptus fine mountain cover shrubs, and great carpets of brilliant wild flowers on the plainsland.

In the Northlands from the Pacific to the Atlantic coasts are different scenic values in the rounded tops of the Pines, the spires of the Spruces, First, and Junipers; with the contrasting summer foliage and winter bark effects of Oaks, Maples, Beech, and the white-barked Birches, with marvelous autumn foliage coloring—especially to the eastward.

Through much of the Unites States are the orchard color, floral, and fruit values of the Apples, Peaches, Pears, Plums, Cherries, with the evergreen Citrus fruit, and the gray Olive foliage in the warmer areas.

Special color values come from such annual crops as the Buckwheat with white flowers, Flax, and Vetches in blues, flowers in purples, and scarlet, the gray-green and purplish Cabbages, yellows of the Wheat, Corn, and Rye, and the much varied greens of other crops.

There will be like distinctive color and fern values in the wild and

cultivated vegetation in the tropical and temperate regions of the World to be seen from the air, as well as the deep shadows in valleys, the cliff rock forms, and color values of such deep gorges as the Grand Canyon, the highlights on the ridge, the white, snow-capped and volcanic peaks, and glistening glaciers, and the perpetual snow and ice regions of the Arctics, and the seasonal snows of the Temperate Zones. There will also be some opportunity to enjoy the wild moving life of the land, waters, and air. There will be all forms of man's primitive, historic, and up-to-date structures.

The World Planning Council may arrange for all-organized, long journey and day time air trips to gain World Planning data from such trips as I indicate below, where such conditions as I have referred to in our United States will be found with wonderfully interesting variations.

An ALL AMERICAN TRIP to the Arctic and Great Lakes will offer a wonderfully complicated pattern of big bays, many channels, big and little islands, high plateaus, mountains with volcanoes, much all year ice and snow, and some Arctic seasonal snow-free areas with carpets of flowers but no trees. Here, in summer the ice breaks into great floating sheets and broken up ice that drifts to be melted in warmer waters, with the great icebergs that break off of the big, creeping glacier ice rivers and leave high ice cliffs. Here too, are the Esquimo ailoo houses, White Bears, Seals, and the marvelously colored Aurora Borealis. We may look forward to Arctic summer resort travel.

The way to the Arctic may be by Nova Scotia, Newfoundland, the Gulf and River of St. Lawrence, Hudson Bay, Baffins Island, Greenland, Ellsmere, Melville, and Banks Islands, to the Mackenzie River outlet. Going south there will be dwarf Willows, then forests that begin with the White Spruce and Aspen, then Oaks, Maples, and a constant increase in varieties as one passes over the Great Bear, Great Slave, Chipawayan, Winnipeg, Lake of the Woods, Superior, Michigan, Heron, Erie, and Ontario Lakes. This lake trip cannot be duplicated in all the world.

Another trip may be over the Allegheny Mountain units, the immense Mississippi valleys with their level and rolling prairies and great plains, to the high Rocky Mountains, over Great Salt Lake with its mountain setting, to the grey-green low growths of the arid regions, with brief period of brilliant floral carpets and with fine atmospheric color values. Then up the Rocky Mountains through Canada by Mannings Point to Barrows Point at the tip of the continent. Then southward in Alaska with the 20,500 ft. high Mt. McKinley in the distance, over the big snow and ice points and bays of Bering Sea to the Aleutian Islands and eastward and southward over the complicated islands, channels, bays shores to "tortuous" Puget Sound. Then would come the parallel Pacific coast ranges, the Gulf of California, the much varied plains and mountains, and by the long tangle of islands, bays, and channels between the southern Andes and the Pacific to the "jagged glacier-clad islands of Cape Horn" and perhaps as trip to all the Antarctic continent shores.

Returning northward, there would be the great Pampas plains of Argentina, big Atlantic coast gulfs, a tangled web of streams and hills on the way to eastern Brazil with its embroidery of long wiggly mountain rangers. Then would come the Tropics of the Equator, the Amazon Valley of the World's greatest river, the northerly continental mountain masses, the much varied islands East and North of the Caribbean Sea and the tropical tip of Florida to Miami with a World center location that may make it one of the World's greatest airports. Then over the fine cities on the Atlantic coast of the inland Waterway with its notable cities, that goes for most of the way from Mexico to Boston, Massachusetts—"The Hub of the Universe," where there is an airport near the city center; an good terminus for such an All America series of trips.

The Eastern Hemisphere.—Here the longest shore trip is from Spain along the Bay of Biscay and the North sea by France and Great Britain, the Scandinavian Peninsula, the Barents, Kara, and Nordenskiold Seas to the

continent's tip at Bering Sea.

The Arctic Ocean Islands of Spitzbergen, Frans Josef Land, Nova Zembla, and New Siberia are not far way. To the southland on the continent are any great marshes and plains.

Southwestward on the Pacific Ocean are Okhotsk, Japan, East China, and South China Seas, with Kamchatka, Japan, the Philippines, and a multitude of greatly varied big and little islands in the East Indian Archipelagos. On the way to Spain are the unique mountains of South China, the "Roof of the World" Himalayan Mountains. Then may come the historic Persia, Turkey, Greece, Italy, and Spain.

The European trips may begin with the deserts of Arabia, the below sea waters of Palestine, the Black and Caspian Seas, the Caucasius and Ural Mountains, and other mountains of scenic and historic interest such as Mount Ararat. Mount Blanc with its perpetual snow and ice cap, and the similar Swiss mountains. Here would be a network of air trips to cover the numerous small areas of European countries, and the big Russia, in Europe, with great numbers of scenic, historic, and architectural incidents that can be seen effectively from the air.

The Australian Continent has its mountains to the eastward, and its great plans and deserts to the westward, with much varied points, gulfs, and bays along the North and South shores. The big, picturesque islands of New Zealand, New Guinea, Borneo, Sumatra, and the Malay Peninsula may be made a part of the Australian continental trip.

Africa is very different from other continents with its huge Sahara Desert and the smaller ones to the southward, its absence of continuous coastal mountain ranges. Its mountains are irregular masses between a network of rivers that offer the biggest potential water power of any continent. The Nile that flows in the most direst line of any of the rivers from the big Victoria Nyanza Lake, has one of the most important historic valleys of

the World, with its pyramids, huge carved figures, and fragments of ancient cities. There is a great lake region south of the sources of the Nile in which are Lakes Tangenyika, Myesse, <ILLEGIBLE>, and Rangwoolo. Other rivers of the continent are extremely varied in <ILLEGIBLE> with cliffs, round-tipped and pointed mountains, and many waterfalls. There are valleys with much varied outline surface, vegetation, creepers, and quadrupeds, and bipeds with and without feathers. There is also much of interest in the ocean islands; with big Madagascar and smaller Indian Ocean islands, and the Atlantic, Azores, Madeiras, Canary, Verde, Ascension, and St. Helens Islands.

All air fliers could be given a People's Plan questionnaire on their trips to be sent to the World Planning Council to advance consummation of its plans. As I have already stated, a majority of the people must have a part in and a knowledge of such plans to support them.

I hear a yell, "think of the danger of such trips!" There is much less danger on aircrafts than in automobiles—that will kill about 40,000 people and injure over 1,000,000 this year in our United States. An aircraft can doge four ways on many levels, whereas an automobile can only dodge two ways on one level. May we not look forward to controls that make it impossible for aircraft to hit each other. This will be no more remarkable than the electric eye that opens and closes a door for you without your touching anything. Of course, the Radio permits much worldwide communication from the air.

The World Planning Council must consider great airplane, land, and water vehicle trunk line thoroughfare to adequately serve the population, economic, and recreation centers for all continents and island group centers. This involves world-wide topographic, climatic, water, and ice condition studies. A dominant airways factor will be strip landings along highways and waterways for the interchange of passengers and freight shipments.

Much of <ILLEGIBLE> terminals, than now <ILLEGIBLE> for the safe, speedy, economic interchange of loads from all forms of air, land, and water vehicles must

be provided as near the population, business, and industrial centers as possible. Such close to city centers may be a combination of open land and filled in water areas, roofs over railroad terminals and on the roods of some built over areas, and on areas from which buildings should be cleared. There will be the problems of road, rail, and air traffic ways service, traffic congestion, and to improve and not impair values.

The lesser landing fields to which people will taxi from the great ports or wayside landing strips may become important world planning features, as it may be found that people who can afford it may establish far away vacation homes that can be reached in a day or two on their planes from their permanent home and office centers.

NATIONAL PLANNING

My National Plan studies began in 1917 when I had some thirty employees in my North Billerica Office, with work in many states, and visits to all states. Little comprehensive National Planning had been undertaken. Attention was being given to City, Metropolitan Districts, and some County and State planning—especially in the office of Frederick Law Olmsted, with whom I traveled on such work before establishing my own office.

It seemed to me essential that National Planning studies should be made to prevent waste in such natural economic resources as soil, forests, oil gas, coal, minerals, and wild life; and to establish connected reservation systems to include notable land and water scenic values and ample room for all types of travel ways to serve business and the recreational, educational, and inspirational values. A National Plan would aim to conserve values, to make prosperity dominant and to minimize adversity by eliminating wastes and securing the best possible use of our material, human, and aesthetic resources. The study that I submitted to a published had 427 typed pages and 320 plan and graphs selected from over 1000 sketches, studies, and drawings. Publishing costs, with no assurance of a return to cover costs, prevented me from issuing this study.

Landscape Architecture of July, 1923, published a National Plan Brief for me with 24 pages and 14 maps and the following forward by Franklin W. Lane, Secretary of the Department and the Interior, who indicated to me his readiness to serve as Chairmen of a National Plan Committee in a letter written to me shortly before he died.

"The making of America is the task that has challenged
the vision and the energies of Americans for 250 years. We
have gone at this work haphazard and sone a thing that is marvelous.
But now has come the day when we must see the problem
as a whole and plan to meet it scientifically. This Mr. Manning

urges, and he has made a study of what America is that is as fascinating as fiction, yet it is all very solemn fact. I am convinced that his plan will be made a subject of study and that some day, and before long, we will have a Council of National Progress in which a survey of what may be done to maker America more prosperous and its people more serviceable will be established."

Secretary Lane had Mr. George Otis Smith, the director of the Geological Survey Division, appoint a committee to examine my study and offer suggestions. One member said if he saw a book in which my map on which new state boundaries were indicated to include the watersheds of the principal state streams, he would throw it away and not read it. Mr. W. C. Mendenhall, one of the committee, and now Director of the United States Geological Survey Division, said that Major J. W. Powell, a master surveyor and planner of the West from 1881–94, and the originator of the Geological Survey Division, had made like recommendations.

In general, my recommendations were similar to those of the National Resources Committee, the 46 States, 400 Counties, and 1700 Towns, Cities with official Planning Agencies—many of which, through the National Resources Committee, have their nine field offices that cover the states.

These agencies have produced reports in about three years that fill forty feet of shelves in the Harvard School of Landscape Architecture library.

The value to the average citizen of these millions of words and thousands of maps, plans, charts, and diagrams is represented by the statement of Mr. Frank A. Tichenor in Aviation, May 1927, of the American Academy of Social and Political Sciences, who says that the average man in search of aeronautical information may "find himself delving into mysterious aerodynamic formulas that to the beginner are as useless as trigonometry to a rhinoceros in British East Africa."

These land planning studies are extremely important in recording land, water, aid, and intercommunication conditions and uses, and in making recom-

mendations with cost estimates that cannot be realized for a long time to come. There should be a card catalog of this and like data prepared earlier governmental agencies, industries, and private offices that are in available permanent depositories to aid all interest in readily gaining needed date, and especially to avoid duplicating work. There should also be small 3 x 5" booklets so bound that the pages can be separated and arranged with like library card data for references, which would be desirable with outline maps and data on the competitions in water, land, and economic resources between continents. Our continent would be shown with its main physiographic units, its land conditions and land-use areas, and other dominant planning factors, with very concise statements to help fix such factors in the mind of anyone who is interested. There should be questionnaires for people who fly, such as are referred to under World Planning

My experience leads me to believe that the debt conditions of the Nation, States, Counties, and Communities will make it necessary to execute most plans on a pay-as-you-go basis and with gifts of lands from owners to include holdings that can best be used for their historic and recreational values and for continuous public reservations. Such gifts would ordinarily take only about 10 per cent of land holdings, and they would stand as memorials to the donor or to a friend. There would, or course, be many playgrounds, especially in the thickly settled areas and also points of historic interest, and notable scenic beauty.

Such public-spirited action will come in part through the knowledge and interest gained if many leading citizens, and especially the young people—the citizens of the next generation—will make maps, sketches, and recommendations for the development of the region that they know best and have a special interest, or recreation, in their spare time. Such activities may well become a part of the constantly increasing adult education activities. Boy Scouts make such plans for Merit Badges—from instructions in the Boy Scout Handbook, a most important reference book for outdoor activities and

wild life.

In other worlds, there must be People's Plans made with the aid of an expert who will guide the plan making and presentation of, and in coordinating the data secured and proposals made. The experts' independent plans, made with the expectation of having them executed through bond issues, are not as likely to be executed as are People's Plans on a pay-as-you-go basis.

Much work in the making and in executing People's Plans can be done on Community Days, of which I have had 15 in 5 States, to be referred to later. On such days, the people—young and old—are called together in the morning through such agencies as posters, circulars, newspapers, schools, and civic organizations. They come in old clothes and brings such tools as shears, trowels, hoes, mattocks, wheelbarrows, and the like, They may bring their own lunches, or meals may be provided for them at noon; and there may be an entertainment for them in the afternoon. Many work all day and come again to finish the job. Such work is done as the opening of trails, views, vistas, trimming trees, planting native plants and contributed garden plants. Preference is given to the persistently spreading garden plants that will hold their own with natives and enrich roadsides, trails, bridle paths, and wild gardens. Such planting may be in public or private grounds as seen from the public roads or walks. There should be about five miles of one flower in its season, as one passes by a mile in an automobile in about two minutes; and there should be a ten-minute period to enjoy such plantations. For locating trails, the growth to be cut along their slides, to open up the best tree shrub and vine and ground cover growths, vistas, and views, and to indicate ground to be prepared, ordinary white grocer's twine in cones is best—as twine in balls does not unroll readily. It is tied to tree trunks, shrub branches, tufts of grass, or other plants, or to stakes. There is, of course, a place for the children's bonfire to which they can hull brush and other wastes—a job they like.

While the above method of procedure has to do chiefly with local planning, it must be recognized that if National Planning is to be a success, it must be supported by a majority of the people whose interest may be created through People's Plans and Community Days.

This National Planning was preceded by work in Massachusetts as represented by a State Plan of March 5, 1909. The Conservation of Land Resources—in which the original land conditions of Boston Harbor region and of the state, and the movement of the first settlements as controlled by land, forest, and water supply conditions is outlined, and also land conditions, occupations, and cultivation throughout the State. This essay took up to pages of the Bostonian of December 1909. In the January 1910 issue was a two and a half page article for General Survey of State, under the following headings: I. General Principles; II. Schedule of Engineers about Lands, outlined by National Conservation Commission—Public Land Laws—Tenure—Agricultural Production—The Public Range—Outline of Proposed Agricultural Survey of Massachusetts. C. Individual and Social Factors in Production. D. Forms of Use and Survey.

December 2, 1919—Milton Whitney, Chief of the Bureau of Soils, gives estimates of a possible cooperative survey of Massachusetts and refers to like work in other states.

December 6, 1909—(State Map 1097)—A letter was sent to Milton Whitney, Chief of Bureau of Soils.

December 22, 1914—Refers to two models for the State Forest and Department of Agriculture for the Massachusetts Panama Pacific Exhibit that may lead to an economic plan of the State as our lands are "one of our most neglected resources, as one-half of its 5,321,787 acres have gone back to the wild and little is producing the maximum of $1,000 per acre on arable land that is assessed for $1,000 per acre.

One model is of existing conditions of thickly settled areas, forests, and open lands. The other model is a first study for an economic plan to lead citizens to begin to study state possibilities, record soil, farming, forest, industrial, and residential conditions, through assembled existing data for governmental and corporation agencies. The models were to be shipped to San Francisco, December 26, 1915.

December 15, 1915, a letter was sent to about 250 State Newspapers, referring to above exhibit and to secure information regarding economic resources.

Three typed pages regarding exhibit of Panama Pacific Exposition—exhibit in miniature at the Boston City Club from February 16 to March 2. A First Economic Study of the State and sketches in color of Sate unites.

The Mississippi Basin, one-third of U. S. Puget Sound, is one of the greatest world harbors.

On September 14, 1918, Franklin K. Lane, the Secretary of the Interior, wrote Governor Samuel W. McCall of Massachusetts, in which he stated that all English speaking countries of the World except out own were providing farms or rural employment for retiring soldiers, and urging like action here with the aid of a local group. This led to the appointment by the Governor of Massachusetts, Soldier's Land Commission Chairman Wilfred Wheeler; the State Agricultural Commissioner, F. W. Rand; the State Forester; T. H. Goodenow, Engineer and State Board of Health, Warren H. Manning, Secretary. While there were few if any soldiers place on farms as a result of this effort, there was so much work done that had a bearing on National Planning that it lead to my broadening such studies as I had made in the State to include the National Plan Study.

On November 6, 1919, there was a conference at the State House, composed of the representatives of the New England Governors, from which I was able to secure data for outlining a map of soil conditions of New England that is now on the walls of the New England Council in the Statler Building, Boston, Massachusetts.

In the notes of the October and November, 1918, conferences are records of State land conditions and uses. Mr. Hornblower indicated that as soldiers were retiring, land would be needed for them; also his views as to how the lands should be secured—the organizations to be contracted and the character of lands as locating of the lands—the central farm administrative unit—the cost of farms ready to work—how farms are to be paid for—order of plans and improvements—what our land types and values are. The functions of the State drainage Commission under this heading—nine types of land, drainage, cultivation, and value per acre.

On November 30, 1918, a letter from me to the Commission referred to the visit I had arranged to Washington on December 13, of Mr. Arthur P. Davis, Chief of the Reclamation Service; Mr. Elwood Mead, Mr. F. W. Hannah Engineer of this District, and Mr. Blanchard statistician of the service, and the need of our arranging the trip to gain an idea of typical land areas of this state.

In the November 21, 1920, New York Times was a half-column editorial on my farm column articles in the November 20 issue that Adolph S. Ochs asked me to write. My article was on the Present and Future Dominance of New York City and on National Planning. The editor said, "Someday a knowledge of a definitely prevised State plan and Nation plan will be a part of the education of every school child."

In National Planning, consideration should be to the utilization, protection, and making known the most direct and safest ways to such underground shelters as the caves—many of which are now open to the public.

There are many mine shafts and corridors, some of which might well be opened to the public a geologic and mining museums. It would give many people a thrill to be taken a mile or were below the surface in Revenaugh Peninsula, Michigan, Copper mines, and in the iron mines of the Michigan Upper Peninsula with their much varied geological conditions; also the salt mines of Lower Michigan, the cool mines of the Central Allegheny region,

the gold and silver mines of the middle and far west.

Elsewhere, are long tunnels under city streets, bodies of water, mountains, et cetera. In cities there are basements and sub-basements in which bombs from airplanes are not likely to kill as many people as in above ground structures and open spaces. The cyclone-cellars of much of the middle west would also have values as shelters in war emergencies. The question of poison gases would need to be considered in such shelters as well as elsewhere.

While this country, with its growing dominance in sea and aircraft for defense may feel that it is safe, it certainly is unwise not to take all practicable measures toward protection of its people from the terrible loss of life that Japan is imposing on China at this period, and that would have been much greater if poison gases had been used as in the World Wore—with much more deadly ones perfected since them.

A PEOPLE'S PLAN OF THE UNITED STATES

The Elders and Juniors can give information on Economic, Social, Educational, Recreational, and Beauty resources for the region that they know intimately. They can locate boundaries of lands that they would like to have preserved for historic values, fine views, good hunting and fishing, and ways for hiking, riding, boating, motoring, and flying. Such lands may be secured as a gift from owners who would like to establish a permanent and serviceable memorial to a friend or to themselves.

Many people will find that gifts of portions of their lands for public reservations will add to the values of adjoining lands. Such lands should be secured on the pay-as-you-go basis as it will now be difficult to secure them by bond issues that will put the cost on coming generations with interest charges. Such action will give a desirable recreational occupation for our people.

Such work will make our Nation superbly serviceable and beautiful in the generation of the Juniors.

For such work the cooperation of the Public, Parochial, and Private school systems, the many juvenile organizations, all organizations that have to directly, or indirectly, with public welfare, and public improvement work and all public officials that have like interests should be communicated with and offered a plan of action that will fit in to their working ways that they feel will advance, and not interfere with it.

All forms of publicity should be taken advantage of that can be led to take a part in the work, including public libraries.

There will be many individuals who will be interested.

It now seems to me advisable to issue a series of very low cost booklets on 3 by 5 inch leaves printed on one side, that can be separated from the booklets or issued separately for library card catalogue files. The blank side may be used to print announcements of interested organizations. My feeling now is that there should be a low charge for such pamphlets and cards

to go toward costs as I believe free service is seldom appreciated.

The cards I now I have in mind for this United States People's Plan may be about as follows:

To give some knowledge of continental competitions such maps as are in the accompanying Rand McNally ATLAS of the World, in part redrawn for the 3 by 5 cards, with lettering that could be readily read.

P.9. World-Physical Relief or World-Lay-of-the-Land.

P.9. World-Average Annual Rainfall, or World-Rainfall.

P.12. World-Temperature Bolts, or World Temperatures.

P.13. World-Vegetation Zones, or World Vegetation

P.32. World-Density of Population, or World-Population Density

P.33. World-Water Power Resources, or World Water Power Resources, Total, and as Now Developed.

P.33. World-Ocean Trade Routes, Volume of Tonnage

Reference may be made to this Atlas or other sources for World Products areas. For our United States there would be the maps on pages 36–37.

P.36. Major Surface Divisions, or Lay-of-the-land Map.

P.36. Agricultural Regions, or Crop Regions.

P.37. Average Annual Rainfall, or Crop Regions.

P.36. Length of Growing Season, or Growing Season Map.

P.45. Navigable Waterways, to which would be added the principal rivers and their drainage basins would be placed after P.36 Major Surface Divisions. This would probably include more of the St. Lawrence River.

The text would call attention to the navigable Inside Ways on the Atlantic and Gulf coasts and navigable cross continental ways between the Gulfs of St. Lawrence and Mexico, the likes which are on the other continent.

There will also be references to and small line drawings of distinct scenic features and notable structures in each "Major Surface Division" such as Spruce spires and Canoe Birch of the "New England Uplands, the

rounded tree covered domes of the Appalachians; the snow capped peaks of the Rockies; the Palms of the Coastal Plains; the Cactus of the Great Basin, the Sequoias of the "Pacific Mountains and valleys. There would be some of such distinctive features as Grand Canyon, Mesas, Pueblos, and monumental rock forms.

It may be desirable also to show main trunk lineways on land, water, and air on the same scale.

It will probably be desirable to lay special emphasis on the United States centers from which Educational and Recreational round trip excursions will cover the world and the need of local landing fields in a very brief outline of world competitions with our United States and world conditions that will be the dominant features in air excursions.

There would also be a concise indication in figures or diagrams of the dominance of the United States in the production of such products and facilities as are indicated on Page 49 of the Atlas.

In the book "City Home and Country Lanes," William E. Smythe gives a most inspiring story of the ideal small country home and community life, and of the back to the land movement that followed the Revolutionary and Civil Wars. He was with Secretary of the Treasury, Franklin K. Lane, who made a special effort to place the World War soldiers on farms. I was secretary of Soldiers' Land Commission in Massachusetts, to which reference will be made.

New England had about three times as much land in cultivation 100 years ago as now; and there is a similar situation in many other states. Mr. Smythe makes it clear that country life is more subject to disease and gives less educational opportunities and less income than the city life, and that "capacity to think clearly on public and social questions, initiative, and ability to carry out convictions and, finally, joy of living," and also "community action, can be more readily developed in the town of 2500 and up than in scattered rural districts." As to rural life, he says, "Let it go—the sooner the better."

The movement of people from farms to cities is explained by the statement that the production of a bushel of wheat that took two hours, is now accomplished in eight minutes. New methods of growing crops with the roots in fertilized water, that give very much greater yields than from the soil, may lead to much greater decrease in lands and farm crops.

Mr. Smythe says, "The widest possible diffusion of home ownership is one of the essentials of a wholesome national existence." There must be a Forward Movement now on a "Back to the Land" movement to preserve our democracy for the "country minded" people of cities. "In some great cities 95 percent of the population is utterly landless."

Secretary Franklin K. Lane, in his November 21, 1919, report to the President, says, "A new system must be devised to dispose the people of great cities in the vacant lands surrounding them, with a home and a garden to

enhance its standards of living socially and spiritually as well as economically. The Green Belt settlements about Washington and other cities, now under way, follow the thought and action of Secretary Lane and Mr. Smythe.

Charles Lothrop Pack, through his National War Garden Committee, increased the nation's World War food supply though 5,250,000 families in over 5,000,000 volunteer gardens, from May, 1917, to June 1919, to a value of over $1,250,000,000. This shows what can be done by great leaders in an emergency period.

The Community Day activities, to be referred to later, are another indication of what the people will do with enthusiasm in the interest of the public. If the work of the many Garden Clubs, Improvement Societies, Boy and Girl Scouts, Four H. Clubs, and many other like organizations, as well as the Chambers of Commerce and Park Commissions, could be coordinated through an adequately financed People's Plan or Community Plan, wonders could be accomplished in National and Local Planning.

The possessors of large estates near the cities should create such settlements thereon, and takes advantage of the aircraft to go from the city airports, or later from the roof of their office buildings, to a less expensive and more distinctive wild land estates up to a hundred miles away in the time that it now takes to go from 15 to 25 miles away to their private estate.

It seems obvious that it will not be as easy to secure and hold the money in the future that has been used in acquiring the land for and developing of great estates with great lawns, greenhouses, formal gardens, and so forth.

The ideal estates of the future, where the owners can gain a complete change from his work hours' atmosphere, with the pleasures of rest, relaxation, inspiration, and new constructive thoughts and actions will be large, wild land areas with much variation in surface conditions—hills with far-reaching views—valleys—streams—ponds—the great lakes and the sea—and much forested

areas. Such areas may be secured as low as $1. per acre in some states, or for $5. and $10. per acre within a hundred-mile radius of many big cities.

If there is no old house to occupy and improve, tents may precede comfortable, low-cost camps, to be gradually increased in size. The owner's pleasure will come from opening wood roads, bridle paths, and foot paths to places of interest; and in opening vistas and views from selected points from which nearby and distant landscape pictures may be gained, views of notable trees, shrubs, and ground covers on the property and in the distance. Notable trees or groups of trees that are dominant objects in the landscape distances out of the property, may be purchased or other arrangements made for their permanent preservation—as I have done with distant trees as seen from the Manning Manse, in North Billerica, Massachusetts, where much of my pleasure has come from such developments as I am referring to. The native growth can be greatly enriched by adding new native or cultivated plants that will become established with little or no attention, as was done on several clients' places that are described elsewhere. At the Manning Manse, the low-growing, dainty leaved pink-flowered Kelsey Locust is spreading fast as a woodland undergrowth. The Scotch Broom is spreading at a roadside, the Trumpet Pitcher plant of the south and the Labrador Tea of the north are in a bog, and Scotch Heather in the edge of a field. All of these are from a few plants or a single plantation put out about fifteen years ago and given no further attention.

Mr. Smythe proposes to use the vacant areas about cities for the homes and gardens of the recent Green Belt type that are now being constructed through governmental activities, probably as an outgrowth of the Soldiers' Farm activities of Secretary Lane and Mr. Smythe's book that is reviewed elsewhere.

I would also have the large open areas in cities that have not been built upon, or from which non-productive buildings have been pulled down, used for temporary homes of the type that can be readily taken apart and moved to

a new site when the area is needed for large buildings or other uses—a better return than can be secured from parked cars. This, of course, means a modification of the building laws in most communities.

In the outlying area, as Mr. Smythe suggests, there may be gardens of vegetable, fruit, shrub, and vine crops with the low cost homes. There also may be a place on a 60 by 150' lot for goats—chickens—rabbits—honey bees—a hot bed—compost pile—tool and feed house, as well as the house with five rooms on the lower floor and a garage, as indicated in Mr. Smythe's book.

Such a home will give most of the food for a family of five with an average of from two to three hours of work per day. Mr. Smythe tells of such garden cities in California, where John S. McGroarty, a poet, tells of a broadly inclusive "Millionaire's Club" there, made up of the Millionaires of Happiness. Think of what such a garden means to the children who should have a little playground, probably in the front lawn area—even if parts of this lawn must be bare of grass for this.

If you could gain an intimate knowledge of the ways that Hens, Rabbits, Pigeons, Goats, Honey Bees, and Mushrooms, The Social Life of the Garden City, and the Person Equation, and The Constructive Program that included The Organization of the Garden City and the Farm City, about Making the Soil Over, and on Having a Good Garden, and preserving the Winter Food Supply, and Housing and Feeding the Livestock, you much read "City Homes and Country Lanes," by William E. Smythe, published by Macmillan for $2.50. While these observations were made on California conditions, they can be adapted to all climatic conditions.

Abraham Lincoln said, "The most valuable of all arts will be the art of deriving a comfortable subsistence from the smallest area of soil."

I found in Calumet, Michigan and in North Billerica, Massachusetts, that all the garden needs for family of four, except corn, potatoes, and

asparagus, could be grown on a 50 by 50 Ft. area, with an average of two hours in labor per day. The garden may include Lettuce—Beans—Beets—Carrots—Kale—Spinach, Turnips, Corn, Mustard, Onion, Peas, Eggplant, Tomato, Cabbage, Radish, and Endives. For the garden, and especially in the other parts of the grounds, there are about fifty herbs, about half being hardy perennials with some shrubs. Thyme makes a fragrant ground cover that can be walked over. Chives are fine plants for the edges of beds. The Beebalms, Cowslips, Fraxinells, Old Woman, Rue, Sage, Tansy, Southern wood, Violets, Damask, and Province Roses can all have a place in herb and shrub borders. Strawberries may be used as a ground cover in place of some grass borders. Japanese Quince has fruit that can be cooked. The Rugosa Rose fruit has an edible pulp. Grape vines for fences and buildings give much varied fine fruit. Blueberries and their big fruited varieties and Huckleberries can be used for their fruits, and foliage with its brilliant autumn colors. Single fruit trees, such as the Apple can have one quarter at the top in summer, one quarter in fall varieties, and one-half in a winter variety. Luther Burbank had 526 varieties growing on one apple tree. There may be currants, gooseberries, blackberries, and raspberries. Fruit trees may be trained to walls as is done so much in England to take up less room and give better fruit. The above applies to the colder areas. In the southlands, and in California, Figs, Pomegranates, Citrus Fruits, Olives and Guava may be added.

In other words, the small home grounds should be planted only with the plants that will yield some kind of crop or favor with flowers, also for the home.

Massachusetts Soldiers Land Commission, 136 State House, Boston
Massachusetts Industries and Taxpayers Race Economic Catastrophe—and 5 p copy of postal card enquiry.

Governor McCall appointed and Governor Coolidge continued this Soldiers Land Commission to cooperate with Secretary Lane in his plan that was endorsed by Presidents Wilson and Roosevelt to provide farms for Soldiers and Sailors in settlements of about 1— families, under competent direction, and in cooperation with the States, with payment terms to give ownership in 40 years. This may aid in developing the 327,514,000 acres of dominant arable land in the United States.

Director A. P. Davis, Mr. F. H. Hannah, Mr. C. J. Blanchard of the United States Reclamation Service, and Dr. Elwood Mead—all western men—examined important areas in the central and eastern part of the state, and indicated the surprise at the large areas favorable for grazing and cultivating with modern farm machines. Doctor Mead states that he "came from Washington in a doubtful frame of mind and went back convinced that New England is a region of great agricultural possibilities, so great, indeed, that if properly developed, they may even temps emigration from the western states."

The Improvement of Agriculture in Massachusetts and Means of Assisting in its Further Development 5 p.

Out State Economic Situation 12 p. with list of 18 authorities referred to.

George O Smith- Director of U. S. Geological Survey.

A. D. T. MEMO

Few, if any, men in the fine arts profession have accomplished so much in advancing their special interest in a practical and artistic way as has A. D. Taylor in his work as a Landscape Architect.

He was a Massachusetts boy. After his public schooling and some college training, he came to my office. It was so obvious that he was a person of special ability that his name was soon placed on my letterheads as an associate up to the time when he decided to establish an office of his own at Cleveland. This was due in part to my recommendation, as it was obvious that his individuality was so marked that his best work would come from an office of his own in which he would be dominant rather than as an associate with other practitioners.

In my office, he had the faculty of gaining an adequate knowledge of the controlling factors of a problem quickly and comprehensively; and of so directing the work of the office assistants as to produce the necessary plans and specifications and estimates quickly and thoroughly. He was especially capable in construction and well equipped for preparing the planting plans, chiefly with the aid of plant specialists as he did not claim to have the knowledge of a botanist who could identify and name all kinds of plant life.

The evidence of his special skill in construction details is given in his book and in his illustrated articles, chiefly on landscape construction, in periodicals, especially in "Landscape Architecture." His presentations have come to be widely accepted as standard procedure.

A far-reaching service to his profession has come during his several years as President of the American Society of Landscape Architects. During several of the years in the period of depression, he has been so identified with Federal Government activities as to find and hold places for Landscape Architects in such work.

He has, during this period, made examinations of the National Forests and made reports as to existing conditions, and plans and recommendations for improvements, some of which have been published in pamphlets.

Man's Spiritual Contact with the Landscape, a 312-page book by Stephen F. Hamlin, of my office in 1912, should be read by everyone whose life activities, inspirations, and ideals, have come through appreciative contacts with the work of the Infinite Power that creates, maintains, and guides our infinitely, far-reaching universe in which out own world is but an atom in the billions of other of the celestial space units in which life is everlasting, as death and decay opens up new uses for the liberated forces and atoms.

Mr. Hamlin writes: "So we read beauty into all the forms of Nature, and find that it varies greatly in kind and degree, from the rugged picturesque of mountain crags or wind-swept forests, or graceful lines of waves or flowing waters, to beauty of color in the lights of the sky, or of purpose in a flower or blade of grass, of perfection of workmanship in the structure and growth of a butterfly, of the power of the breath of the wind, of the solemn grandeur of the panorama of the horizon, of the stupendous magnitude of the vast reaches of space, to the awful sublimity of the elements unleashed in action. This highest aspect of the development of Nature leads us beyond the beautiful to the heights of the sublime. The mind of man then stands naked and trembling before its Maker.

"It is only as the creative faculties of the mind of man work in harmony with Nature that the beauties of art are brought forth. For Art and Nature are two separate hand-maidens of the Divine Inspiration. And as they work together are the creations of earth the nearest to perfection as viewed by the human spirit. The domain of Art has enlarged with the development of man through the centuries, and her canons have changed, and must change; Nature is still fresh and unchanged in all her movements and purposes, she speaks today as in the dawn of Creation.

Memo by Miss M. Manning, Secretary to Warren H. Manning - 2/11/38

MEMORANDUM ON WARREN H. MANNING'S AUTOBIOGRAPHY

Mr. Manning adhered to Miss Stockwell's outline for Chapter I. Family Background, Chapter II. Childhood, Chapter III. Schooldays, Chapters II. and III. were combined, because Mr. Manning felt that they were closely related.

The Chapters that were not strictly adhered to are Chapter VI. Early Professional Practice, Chapter VII. Manning Brothers Partnership, Chapter VII. Growth of Practice at Boston, Chapter IX Billerica, Chapter X. Cambridge Expansion, Chapter XI Cambridge, and Chapter XII The Past Two Years, the Present, and the Future. Although these headings were not used, the facts were brought in throughout the material that Mr. Manning wrote.

There was no definite arrangement of the material following Chapter V Olmsted Office Employment. Mr. Manning thought it best to have a summary on Private Estates, giving general information about all estates and including some of the less important estates that he had to do with. After this summary came some of the most important Estates, such as Cyrus H. McCormick, William G. Mather, John D. Rockefeller, John Howard Whittemore, the Hardtcourt Estate, et cetera. Mr. Manning tonight that his work for the Cleveland Cliffs Iron Company should be included with that of William G. Mather because Mr. Mather was so closely connected Company work.

Next came Resorts, including the work done at Pinehurst, North Carolina, and Myrtle Beach, South Carolina. Then came the towns and cities of Maine, Massachusetts, New York, Ohio, Pennsylvania, Rhode Island, Tennessee, et cetera, in which work was done from the earliest date to the latest. This included small home grounds, town planning, parks, parkways, expositions, schools, small companies, and subdivisions.

Mr. Manning's work on the University of Virginia, Massachusetts State College, and his trips with F. H. Gilson came next. Amusement Parks, including those of Colonel Campbell, and others, followed; then the 1907 Jamestown Exposition, at Norfolk, Virginia. This was followed by the Community Days that Mr. Manning had organized, with some information about the towns where they took place. Next was Cemeteries, Roadside Planting, Landscape Values, World-National-Regional, and Local Planning, and A People's Plan of the United States. At the end of this, I put his reviews of the books "City Homes and Country Lanes" by William E. Smythe, and "Man's Spiritual Contact With the Landscape," by Stephen E. Hamlin.

Mr. Manning wanted to get in something about the people from his office, who had made a success in life and partly attributed it to the start in his office. He had started a Memo on Mr. A. D. Taylor. Mr. Manning thought that the list of his writings might come at the end of the autobiography.

All this arrangement was just an aid in assembling material, and not definite. Mr. Manning had been through the whole material at least once, and some of the material had been corrected and rewritten about four times.

Mr. Manning tried to write most of the material from memory because Miss Stockwell had warned him to keep away from the Card Catalog so that the autobiography would have more of an interest. Occasionally, he referred to The Classified Client List and the Card Catalog to verify names or dates.

Mr. Manning wanted to assemble the material he had written and take it to Houghton Mifflin and Company to see what they had to say about it, and then follow their suggestions as to arrangement, deleting, et cetera in the final writing.

December 6, 1937

Mr. A. D. Taylor
4614 Prospect Avenue
Cleveland, Ohio

Dear A. D. T.:

I promised some weeks ago to write my comments on you and your work. The enclosure may interest you as a first effort made without looking over your published material and the records of the A.S.L.A., and without touching on your general office practice of which I have little knowledge.

After I have your comments, I will be ready to try again.

Sincerely yours,

WARREN H. MANNING

MM
Memoranda

E. H.

Checking of various material found in clearing out the Bookhouse, etc, will, I believe, disclose a number of articles prepared by W. H. M. prior to any listed on this list.

H. M. 8/12/38